**2gk**

**====== Test #1 =======**  
--- Input: size 180 ---  
function w $main() {  
@start  
 %x =w copy 5  
@loop  
 %x =w mul %x, %x  
 %cond =w csgew %x, 200  
 jnz %cond, @end, @loop  
@end  
 %t =w call $printf(l $fmt, w %x)  
 ret 0  
}  
  
--- Output: size 121 ---  
@start  
 gen = @start%x   
 kill = @loop%x   
@loop  
 gen = @loop%x @loop%cond   
 kill = @start%x   
@end  
 gen = @end%t   
 kill =   
  
--- Correct: size 117 ---  
@start  
 gen = @start%x  
 kill = @loop%x  
  
@loop  
 gen = @loop%x @loop%cond  
 kill = @start%x  
  
@end  
 gen = @end%t  
 kill =  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=4, ptime=4, rtime=11, maxvsz=34512896, maxrss=3465216, nvcsw=3, nivcsw=4 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #2 =======**  
--- Input: size 259 ---  
export function $sieve(w %n, l %prime) {  
@fill0.cond  
 %uuu =l alloc4 4  
 %cond1 =w csgtw %n, 0  
 jnz %cond1, @fill0.body, @fill2.header  
  
@fill0.body  
 storeb 0, %prime  
  
@fill0.exit  
 %n =w cast 2  
 %uuu =l alloc8 2  
 %uuu =l alloc16 1  
  
@fill2.header  
 ret  
}  
  
--- Output: size 274 ---  
@fill0.cond  
 gen = @fill0.cond%n @fill0.cond%prime @fill0.cond%uuu @fill0.cond%cond1   
 kill = @fill0.exit%n @fill0.exit%uuu   
@fill0.body  
 gen =   
 kill =   
@fill0.exit  
 gen = @fill0.exit%n @fill0.exit%uuu   
 kill = @fill0.cond%n @fill0.cond%uuu   
@fill2.header  
 gen =   
 kill =   
  
--- Correct: size 305 ---  
@fill2.header gen = kill =  
  
@fill0.exit gen = @fill0.exit%uuu @fill0.exit%n  
 kill = @fill0.cond%uuu @fill0.cond%n  
  
@fill0.body gen = kill =  
  
@fill0.cond gen = @fill0.cond%cond1 @fill0.cond%uuu @fill0.cond%prime @fill0.cond%n  
 kill = @fill0.exit%uuu @fill0.exit%n  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=4, maxvsz=21635072, maxrss=3387392, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #3 =======**  
--- Input: size 1963 ---  
export function w $plot(w %t0, w %t1, w %t2) {  
@l0  
 %x =l alloc4 4  
 storew %t0, %x  
 %y =l alloc4 4  
 storew %t1, %y  
 %rnd =l alloc4 4  
 storew %t2, %rnd  
 %n =l alloc4 4  
 %fx =l alloc4 4  
 %fy =l alloc4 4  
 %zx =l alloc4 4  
 %zy =l alloc4 4  
 %nx =l alloc4 4  
 %ny =l alloc4 4  
 %W =l alloc4 4  
 %H =l alloc4 4  
 %col =l alloc8 8  
 %t7 =w loadw %x  
 %t9 =w loadw %W  
 %t8 =w div %t9, 2  
 %t6 =w sub %t7, %t8  
 %t5 =w mul %t6, 4000  
 %t12 =w loadw %W  
 %t4 =w div %t5, %t12  
 storew %t4, %fx  
 %t17 =w loadw %y  
 %t19 =w loadw %H  
 %t18 =w div %t19, 2  
 %t16 =w sub %t17, %t18  
 %t15 =w mul %t16, 4000  
 %t22 =w loadw %H  
 %t14 =w div %t15, %t22  
 storew %t14, %fy  
 %t24 =w loadw %fx  
 storew %t24, %zx  
 %t26 =w loadw %fy  
 storew %t26, %zy  
 storew 0, %n  
@l1  
 %t30 =w loadw %n  
 %t29 =w csltw %t30, 200  
 jnz %t29, @l2, @l3  
@l2  
 %t36 =w loadw %zx  
 %t37 =w loadw %zx  
 %t35 =w mul %t36, %t37  
 %t39 =w loadw %zy  
 %t40 =w loadw %zy  
 %t38 =w mul %t39, %t40  
 %t34 =w add %t35, %t38  
 %t32 =w csltw 4000000, %t34  
 jnz %t32, @l4, @l5  
@l4  
 jmp @l3  
@l5  
 %t46 =w loadw %zx  
 %t47 =w loadw %zx  
 %t45 =w mul %t46, %t47  
 %t44 =w div %t45, 1000  
 %t51 =w loadw %zy  
 %t52 =w loadw %zy  
 %t50 =w mul %t51, %t52  
 %t49 =w div %t50, 1000  
 %t43 =w sub %t44, %t49  
 %t54 =w loadw %fx  
 %t42 =w add %t43, %t54  
 storew %t42, %nx  
 %t59 =w loadw %zx  
 %t60 =w loadw %zy  
 %t58 =w mul %t59, %t60  
 %t57 =w div %t58, 500  
 %t62 =w loadw %fy  
 %t56 =w add %t57, %t62  
 storew %t56, %ny  
 %t64 =w loadw %nx  
 storew %t64, %zx  
 %t66 =w loadw %ny  
 storew %t66, %zy  
 %t68 =w loadw %n  
 %t67 =w add %t68, 1  
 storew %t67, %n  
 jmp @l1  
@l3  
 %t72 =l loadl %col  
 %t73 =w loadw %n  
 %t74 =l extsw %t73  
 %t75 =l mul 4, %t74  
 %t71 =l add %t72, %t75  
 %t70 =w loadw %t71  
 storew %t70, %n  
 %t77 =w loadw %rnd  
 %t79 =w loadw %n  
 %t80 =w loadw %n  
 %t76 =w call $SDL\_SetRenderDrawColor(w %t77, w 100, w %t79, w %t80, w 255, ...)  
 %t83 =w loadw %rnd  
 %t84 =w loadw %x  
 %t85 =w loadw %y  
 %t82 =w call $SDL\_RenderDrawPoint(w %t83, w %t84, w %t85, ...)  
 ret 0  
}  
  
  
--- Output: size 717 ---  
@l0  
 gen = @l0%t0 @l0%t1 @l0%t2 @l0%x @l0%y @l0%rnd @l0%n @l0%fx @l0%fy @l0%zx @l0%zy @l0%nx @l0%ny @l0%W @l0%H @l0%col @l0%t7 @l0%t9 @l0%t8 @l0%t6 @l0%t5 @l0%t12 @l0%t4 @l0%t17 @l0%t19 @l0%t18 @l0%t16 @l0%t15 @l0%t22 @l0%t14 @l0%t24 @l0%t26   
 kill =   
@l1  
 gen = @l1%t30 @l1%t29   
 kill =   
@l2  
 gen = @l2%t36 @l2%t37 @l2%t35 @l2%t39 @l2%t40 @l2%t38 @l2%t34 @l2%t32   
 kill =   
@l4  
 gen =   
 kill =   
@l5  
 gen = @l5%t46 @l5%t47 @l5%t45 @l5%t44 @l5%t51 @l5%t52 @l5%t50 @l5%t49 @l5%t43 @l5%t54 @l5%t42 @l5%t59 @l5%t60 @l5%t58 @l5%t57 @l5%t62 @l5%t56 @l5%t64 @l5%t66 @l5%t68 @l5%t67   
 kill =   
@l3  
 gen = @l3%t72 @l3%t73 @l3%t74 @l3%t75 @l3%t71 @l3%t70 @l3%t77 @l3%t79 @l3%t80 @l3%t76 @l3%t83 @l3%t84 @l3%t85 @l3%t82   
 kill =   
  
--- Correct: size 711 ---  
@l0  
 gen = @l0%t0 @l0%t1 @l0%t2 @l0%x @l0%y @l0%rnd @l0%n @l0%fx @l0%fy @l0%zx @l0%zy @l0%nx @l0%ny @l0%W @l0%H @l0%col @l0%t7 @l0%t9 @l0%t8 @l0%t6 @l0%t5 @l0%t12 @l0%t4 @l0%t17 @l0%t19 @l0%t18 @l0%t16 @l0%t15 @l0%t22 @l0%t14 @l0%t24 @l0%t26  
 kill =  
  
@l1  
 gen = @l1%t30 @l1%t29  
 kill =  
  
@l2  
 gen = @l2%t36 @l2%t37 @l2%t35 @l2%t39 @l2%t40 @l2%t38 @l2%t34 @l2%t32  
 kill =  
  
@l4  
 gen =  
 kill =  
  
@l5  
 gen = @l5%t46 @l5%t47 @l5%t45 @l5%t44 @l5%t51 @l5%t52 @l5%t50 @l5%t49 @l5%t43 @l5%t54 @l5%t42 @l5%t59 @l5%t60 @l5%t58 @l5%t57 @l5%t62 @l5%t56 @l5%t64 @l5%t66 @l5%t68 @l5%t67  
 kill =  
  
@l3  
 gen = @l3%t72 @l3%t73 @l3%t74 @l3%t75 @l3%t71 @l3%t70 @l3%t77 @l3%t79 @l3%t80 @l3%t76 @l3%t83 @l3%t84 @l3%t85 @l3%t82  
 kill =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=4, stime=0, ptime=4, rtime=6, maxvsz=21635072, maxrss=3477504, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #4 =======**  
--- Input: size 2101 ---  
export function w $main() {  
@l0  
 %c =l alloc4 4  
 %n =l alloc4 4  
 %x =l alloc4 4  
 %y =l alloc4 4  
 %e =l alloc8 8  
 %ie =l alloc8 8  
 %col =l alloc8 8  
 %W =l alloc4 4  
 %H =l alloc4 4  
 %rnd =l alloc4 4  
 %win =l alloc4 4  
 storew 800, %W  
 storew 800, %H  
 %t4 =w call $SDL\_Init(w 32, ...)  
 %t11 =w loadw %W  
 %t12 =w loadw %H  
 %t7 =w call $SDL\_CreateWindow(l $glo1, w 0, w 0, w %t11, w %t12, w 0, ...)  
 storew %t7, %win  
 %t16 =w loadw %win  
 %t17 =w sub 0, 1  
 %t15 =w call $SDL\_CreateRenderer(w %t16, w %t17, w 0, ...)  
 storew %t15, %rnd  
 %t22 =l loadl %e  
 storel %t22, %ie  
 storew 20, %c  
 storew 0, %n  
@l1  
 %t28 =w loadw %n  
 %t27 =w csltw %t28, 200  
 jnz %t27, @l2, @l3  
@l2  
 %t31 =w loadw %c  
 %t33 =l loadl %col  
 %t34 =w loadw %n  
 %t35 =l extsw %t34  
 %t36 =l mul 4, %t35  
 %t32 =l add %t33, %t36  
 storew %t31, %t32  
 %t39 =w loadw %c  
 %t43 =w loadw %c  
 %t41 =w sub 255, %t43  
 %t40 =w div %t41, 8  
 %t38 =w add %t39, %t40  
 storew %t38, %c  
 %t46 =w loadw %n  
 %t45 =w add %t46, 1  
 storew %t45, %n  
 jmp @l1  
@l3  
 %t50 =l loadl %col  
 %t51 =w loadw %n  
 %t52 =l extsw %t51  
 %t53 =l mul 4, %t52  
 %t49 =l add %t50, %t53  
 storew 30, %t49  
 %t55 =w loadw %rnd  
 %t54 =w call $SDL\_RenderClear(w %t55, ...)  
 storew 0, %x  
@l4  
 %t59 =w loadw %x  
 %t60 =w loadw %W  
 %t58 =w csltw %t59, %t60  
 jnz %t58, @l5, @l6  
@l5  
 storew 0, %y  
@l7  
 %t64 =w loadw %y  
 %t65 =w loadw %H  
 %t63 =w csltw %t64, %t65  
 jnz %t63, @l8, @l9  
@l8  
 %t67 =w loadw %x  
 %t68 =w loadw %y  
 %t66 =w call $plot(w %t67, w %t68, ...)  
 %t70 =w loadw %y  
 %t69 =w add %t70, 1  
 storew %t69, %y  
 jmp @l7  
@l9  
 %t72 =w loadw %x  
 %t71 =w add %t72, 1  
 storew %t71, %x  
 jmp @l4  
@l6  
 %t74 =w loadw %rnd  
 %t73 =w call $SDL\_RenderPresent(w %t74, ...)  
@l10  
 jnz 1, @l11, @l12  
@l11  
 %t77 =l loadl %e  
 %t76 =w call $SDL\_PollEvent(l %t77, ...)  
 jnz %t76, @l13, @l14  
@l13  
 %t81 =l loadl %ie  
 %t80 =l add %t81, 0  
 %t79 =w loadw %t80  
 %t78 =w ceqw %t79, 769  
 jnz %t78, @l16, @l17  
@l16  
 jmp @l12  
@l17  
@l14  
 jmp @l10  
@l12  
 %t85 =w loadw %rnd  
 %t84 =w call $SDL\_DestroyRenderer(w %t85, ...)  
 %t87 =w loadw %win  
 %t86 =w call $SDL\_DestroyWindow(w %t87, ...)  
 %t88 =w call $SDL\_Quit(...)  
 ret 0  
}  
  
--- Output: size 894 ---  
@l0  
 gen = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22   
 kill =   
@l1  
 gen = @l1%t28 @l1%t27   
 kill =   
@l2  
 gen = @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45   
 kill =   
@l3  
 gen = @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54   
 kill =   
@l4  
 gen = @l4%t59 @l4%t60 @l4%t58   
 kill =   
@l5  
 gen =   
 kill =   
@l7  
 gen = @l7%t64 @l7%t65 @l7%t63   
 kill =   
@l8  
 gen = @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69   
 kill =   
@l9  
 gen = @l9%t72 @l9%t71   
 kill =   
@l6  
 gen = @l6%t74 @l6%t73   
 kill =   
@l10  
 gen =   
 kill =   
@l11  
 gen = @l11%t77 @l11%t76   
 kill =   
@l13  
 gen = @l13%t81 @l13%t80 @l13%t79 @l13%t78   
 kill =   
@l16  
 gen =   
 kill =   
@l17  
 gen =   
 kill =   
@l14  
 gen =   
 kill =   
@l12  
 gen = @l12%t85 @l12%t84 @l12%t87 @l12%t86 @l12%t88   
 kill =   
  
--- Correct: size 877 ---  
@l0  
 gen = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22  
 kill =  
  
@l1  
 gen = @l1%t28 @l1%t27  
 kill =  
  
@l2  
 gen = @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45  
 kill =  
  
@l3  
 gen = @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54  
 kill =  
  
@l4  
 gen = @l4%t59 @l4%t60 @l4%t58  
 kill =  
  
@l5  
 gen =  
 kill =  
  
@l7  
 gen = @l7%t64 @l7%t65 @l7%t63  
 kill =  
  
@l8  
 gen = @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69  
 kill =  
  
@l9  
 gen = @l9%t72 @l9%t71  
 kill =  
  
@l6  
 gen = @l6%t74 @l6%t73  
 kill =  
  
@l10  
 gen =  
 kill =  
  
@l11  
 gen = @l11%t77 @l11%t76  
 kill =  
  
@l13  
 gen = @l13%t81 @l13%t80 @l13%t79 @l13%t78  
 kill =  
  
@l16  
 gen =  
 kill =  
  
@l17  
 gen =  
 kill =  
  
@l14  
 gen =  
 kill =  
  
@l12  
 gen = @l12%t85 @l12%t84 @l12%t87 @l12%t86 @l12%t88  
 kill =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=4, ptime=4, rtime=6, maxvsz=21635072, maxrss=3518464, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=3, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=3 }  
  
**====== Test #5 =======**  
--- Input: size 1002 ---  
export function w $main() {  
@l0  
 %n =l alloc4 4  
 %t =l alloc4 4  
 %c =l alloc4 4  
 %p =l alloc4 4  
 storew 0, %c  
 storew 2, %n  
@l1  
 %t5 =w loadw %n  
 %t4 =w csltw %t5, 5000  
 jnz %t4, @l2, @l3  
@l2  
 storew 2, %t  
 storew 1, %p  
@l4  
 %t13 =w loadw %t  
 %t14 =w loadw %t  
 %t12 =w mul %t13, %t14  
 %t15 =w loadw %n  
 %t11 =w cslew %t12, %t15  
 jnz %t11, @l5, @l6  
@l5  
 %t18 =w loadw %n  
 %t19 =w loadw %t  
 %t17 =w rem %t18, %t19  
 %t16 =w ceqw %t17, 0  
 jnz %t16, @l7, @l8  
@l7  
 storew 0, %p  
@l8  
 %t24 =w loadw %t  
 %t23 =w add %t24, 1  
 storew %t23, %t  
 jmp @l4  
@l6  
 %t25 =w loadw %p  
 jnz %t25, @l10, @l11  
@l10  
 %t26 =w loadw %c  
 jnz %t26, @l16, @l14  
@l16  
 %t29 =w loadw %c  
 %t28 =w rem %t29, 10  
 %t27 =w ceqw %t28, 0  
 jnz %t27, @l13, @l14  
@l13  
 %t32 =w call $printf(l $glo1, ...)  
@l14  
 %t36 =w loadw %n  
 %t34 =w call $printf(l $glo2, w %t36, ...)  
 %t38 =w loadw %c  
 %t37 =w add %t38, 1  
 storew %t37, %c  
@l11  
 %t40 =w loadw %n  
 %t39 =w add %t40, 1  
 storew %t39, %n  
 jmp @l1  
@l3  
 %t41 =w call $printf(l $glo3, ...)  
 ret 0  
}  
  
--- Output: size 540 ---  
@l0  
 gen = @l0%n @l0%t @l0%c @l0%p   
 kill =   
@l1  
 gen = @l1%t5 @l1%t4   
 kill =   
@l2  
 gen =   
 kill =   
@l4  
 gen = @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11   
 kill =   
@l5  
 gen = @l5%t18 @l5%t19 @l5%t17 @l5%t16   
 kill =   
@l7  
 gen =   
 kill =   
@l8  
 gen = @l8%t24 @l8%t23   
 kill =   
@l6  
 gen = @l6%t25   
 kill =   
@l10  
 gen = @l10%t26   
 kill =   
@l16  
 gen = @l16%t29 @l16%t28 @l16%t27   
 kill =   
@l13  
 gen = @l13%t32   
 kill =   
@l14  
 gen = @l14%t36 @l14%t34 @l14%t38 @l14%t37   
 kill =   
@l11  
 gen = @l11%t40 @l11%t39   
 kill =   
@l3  
 gen = @l3%t41   
 kill =   
  
--- Correct: size 526 ---  
@l0  
 gen = @l0%n @l0%t @l0%c @l0%p  
 kill =  
  
@l1  
 gen = @l1%t5 @l1%t4  
 kill =  
  
@l2  
 gen =  
 kill =  
  
@l4  
 gen = @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11  
 kill =  
  
@l5  
 gen = @l5%t18 @l5%t19 @l5%t17 @l5%t16  
 kill =  
  
@l7  
 gen =  
 kill =  
  
@l8  
 gen = @l8%t24 @l8%t23  
 kill =  
  
@l6  
 gen = @l6%t25  
 kill =  
  
@l10  
 gen = @l10%t26  
 kill =  
  
@l16  
 gen = @l16%t29 @l16%t28 @l16%t27  
 kill =  
  
@l13  
 gen = @l13%t32  
 kill =  
  
@l14  
 gen = @l14%t36 @l14%t34 @l14%t38 @l14%t37  
 kill =  
  
@l11  
 gen = @l11%t40 @l11%t39  
 kill =  
  
@l3  
 gen = @l3%t41  
 kill =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=5, maxvsz=21635072, maxrss=3399680, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #6 =======**  
--- Input: size 897 ---  
export function w $print(w %t0, l %t1) {  
@l0  
 %Q =l alloc4 4  
 storew %t0, %Q  
 %t =l alloc8 8  
 storel %t1, %t  
 %x =l alloc4 4  
 %y =l alloc4 4  
 storew 0, %y  
@l1  
 %t5 =w loadw %y  
 %t6 =w loadw %Q  
 %t4 =w csltw %t5, %t6  
 jnz %t4, @l2, @l3  
@l2  
 storew 0, %x  
@l4  
 %t10 =w loadw %x  
 %t11 =w loadw %Q  
 %t9 =w csltw %t10, %t11  
 jnz %t9, @l5, @l6  
@l5  
 %t16 =l loadl %t  
 %t17 =w loadw %x  
 %t18 =l extsw %t17  
 %t19 =l mul 8, %t18  
 %t15 =l add %t16, %t19  
 %t14 =l loadl %t15  
 %t20 =w loadw %y  
 %t21 =l extsw %t20  
 %t22 =l mul 4, %t21  
 %t13 =l add %t14, %t22  
 %t12 =w loadw %t13  
 jnz %t12, @l7, @l8  
@l7  
 %t23 =w call $printf(l $glo1, ...)  
 jmp @l9  
@l8  
 %t25 =w call $printf(l $glo2, ...)  
@l9  
 %t28 =w loadw %x  
 %t27 =w add %t28, 1  
 storew %t27, %x  
 jmp @l4  
@l6  
 %t29 =w call $printf(l $glo3, ...)  
 %t32 =w loadw %y  
 %t31 =w add %t32, 1  
 storew %t31, %y  
 jmp @l1  
@l3  
 %t33 =w call $printf(l $glo4, ...)  
 ret 0  
}  
  
--- Output: size 444 ---  
@l0  
 gen = @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y   
 kill =   
@l1  
 gen = @l1%t5 @l1%t6 @l1%t4   
 kill =   
@l2  
 gen =   
 kill =   
@l4  
 gen = @l4%t10 @l4%t11 @l4%t9   
 kill =   
@l5  
 gen = @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12   
 kill =   
@l7  
 gen = @l7%t23   
 kill =   
@l8  
 gen = @l8%t25   
 kill =   
@l9  
 gen = @l9%t28 @l9%t27   
 kill =   
@l6  
 gen = @l6%t29 @l6%t32 @l6%t31   
 kill =   
@l3  
 gen = @l3%t33   
 kill =   
  
--- Correct: size 434 ---  
@l0  
 gen = @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y  
 kill =  
  
@l1  
 gen = @l1%t5 @l1%t6 @l1%t4  
 kill =  
  
@l2  
 gen =  
 kill =  
  
@l4  
 gen = @l4%t10 @l4%t11 @l4%t9  
 kill =  
  
@l5  
 gen = @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12  
 kill =  
  
@l7  
 gen = @l7%t23  
 kill =  
  
@l8  
 gen = @l8%t25  
 kill =  
  
@l9  
 gen = @l9%t28 @l9%t27  
 kill =  
  
@l6  
 gen = @l6%t29 @l6%t32 @l6%t31  
 kill =  
  
@l3  
 gen = @l3%t33  
 kill =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=4, maxvsz=21635072, maxrss=3543040, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #7 =======**  
--- Input: size 3533 ---  
export function w $chk(w %t0, w %t1, l %t2, w %t3) {  
@l0  
 %x =l alloc4 4  
 storew %t0, %x  
 %y =l alloc4 4  
 storew %t1, %y  
 %t =l alloc8 8  
 storel %t2, %t  
 %Q =l alloc4 4  
 storew %t3, %Q  
 %i =l alloc4 4  
 %r =l alloc4 4  
 storew 0, %i  
 storew 0, %r  
@l1  
 %t8 =w loadw %i  
 %t9 =w loadw %Q  
 %t7 =w csltw %t8, %t9  
 jnz %t7, @l2, @l3  
@l2  
 %t12 =w loadw %r  
 %t17 =l loadl %t  
 %t18 =w loadw %x  
 %t19 =l extsw %t18  
 %t20 =l mul 8, %t19  
 %t16 =l add %t17, %t20  
 %t15 =l loadl %t16  
 %t21 =w loadw %i  
 %t22 =l extsw %t21  
 %t23 =l mul 4, %t22  
 %t14 =l add %t15, %t23  
 %t13 =w loadw %t14  
 %t11 =w add %t12, %t13  
 storew %t11, %r  
 %t26 =w loadw %r  
 %t31 =l loadl %t  
 %t32 =w loadw %i  
 %t33 =l extsw %t32  
 %t34 =l mul 8, %t33  
 %t30 =l add %t31, %t34  
 %t29 =l loadl %t30  
 %t35 =w loadw %y  
 %t36 =l extsw %t35  
 %t37 =l mul 4, %t36  
 %t28 =l add %t29, %t37  
 %t27 =w loadw %t28  
 %t25 =w add %t26, %t27  
 storew %t25, %r  
 %t41 =w loadw %x  
 %t42 =w loadw %i  
 %t40 =w add %t41, %t42  
 %t43 =w loadw %Q  
 %t39 =w csltw %t40, %t43  
 %t46 =w loadw %y  
 %t47 =w loadw %i  
 %t45 =w add %t46, %t47  
 %t48 =w loadw %Q  
 %t44 =w csltw %t45, %t48  
 %t38 =w and %t39, %t44  
 jnz %t38, @l4, @l5  
@l4  
 %t51 =w loadw %r  
 %t56 =l loadl %t  
 %t58 =w loadw %x  
 %t59 =w loadw %i  
 %t57 =w add %t58, %t59  
 %t60 =l extsw %t57  
 %t61 =l mul 8, %t60  
 %t55 =l add %t56, %t61  
 %t54 =l loadl %t55  
 %t63 =w loadw %y  
 %t64 =w loadw %i  
 %t62 =w add %t63, %t64  
 %t65 =l extsw %t62  
 %t66 =l mul 4, %t65  
 %t53 =l add %t54, %t66  
 %t52 =w loadw %t53  
 %t50 =w add %t51, %t52  
 storew %t50, %r  
@l5  
 %t70 =w loadw %x  
 %t71 =w loadw %i  
 %t69 =w add %t70, %t71  
 %t72 =w loadw %Q  
 %t68 =w csltw %t69, %t72  
 %t76 =w loadw %y  
 %t77 =w loadw %i  
 %t75 =w sub %t76, %t77  
 %t73 =w cslew 0, %t75  
 %t67 =w and %t68, %t73  
 jnz %t67, @l7, @l8  
@l7  
 %t80 =w loadw %r  
 %t85 =l loadl %t  
 %t87 =w loadw %x  
 %t88 =w loadw %i  
 %t86 =w add %t87, %t88  
 %t89 =l extsw %t86  
 %t90 =l mul 8, %t89  
 %t84 =l add %t85, %t90  
 %t83 =l loadl %t84  
 %t92 =w loadw %y  
 %t93 =w loadw %i  
 %t91 =w sub %t92, %t93  
 %t94 =l extsw %t91  
 %t95 =l mul 4, %t94  
 %t82 =l add %t83, %t95  
 %t81 =w loadw %t82  
 %t79 =w add %t80, %t81  
 storew %t79, %r  
@l8  
 %t100 =w loadw %x  
 %t101 =w loadw %i  
 %t99 =w sub %t100, %t101  
 %t97 =w cslew 0, %t99  
 %t104 =w loadw %y  
 %t105 =w loadw %i  
 %t103 =w add %t104, %t105  
 %t106 =w loadw %Q  
 %t102 =w csltw %t103, %t106  
 %t96 =w and %t97, %t102  
 jnz %t96, @l10, @l11  
@l10  
 %t109 =w loadw %r  
 %t114 =l loadl %t  
 %t116 =w loadw %x  
 %t117 =w loadw %i  
 %t115 =w sub %t116, %t117  
 %t118 =l extsw %t115  
 %t119 =l mul 8, %t118  
 %t113 =l add %t114, %t119  
 %t112 =l loadl %t113  
 %t121 =w loadw %y  
 %t122 =w loadw %i  
 %t120 =w add %t121, %t122  
 %t123 =l extsw %t120  
 %t124 =l mul 4, %t123  
 %t111 =l add %t112, %t124  
 %t110 =w loadw %t111  
 %t108 =w add %t109, %t110  
 storew %t108, %r  
@l11  
 %t129 =w loadw %x  
 %t130 =w loadw %i  
 %t128 =w sub %t129, %t130  
 %t126 =w cslew 0, %t128  
 %t134 =w loadw %y  
 %t135 =w loadw %i  
 %t133 =w sub %t134, %t135  
 %t131 =w cslew 0, %t133  
 %t125 =w and %t126, %t131  
 jnz %t125, @l13, @l14  
@l13  
 %t138 =w loadw %r  
 %t143 =l loadl %t  
 %t145 =w loadw %x  
 %t146 =w loadw %i  
 %t144 =w sub %t145, %t146  
 %t147 =l extsw %t144  
 %t148 =l mul 8, %t147  
 %t142 =l add %t143, %t148  
 %t141 =l loadl %t142  
 %t150 =w loadw %y  
 %t151 =w loadw %i  
 %t149 =w sub %t150, %t151  
 %t152 =l extsw %t149  
 %t153 =l mul 4, %t152  
 %t140 =l add %t141, %t153  
 %t139 =w loadw %t140  
 %t137 =w add %t138, %t139  
 storew %t137, %r  
@l14  
 %t155 =w loadw %i  
 %t154 =w add %t155, 1  
 storew %t154, %i  
 jmp @l1  
@l3  
 %t156 =w loadw %r  
 ret %t156  
}  
  
  
--- Output: size 1535 ---  
@l0  
 gen = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r   
 kill =   
@l1  
 gen = @l1%t8 @l1%t9 @l1%t7   
 kill =   
@l2  
 gen = @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38   
 kill =   
@l4  
 gen = @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50   
 kill =   
@l5  
 gen = @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67   
 kill =   
@l7  
 gen = @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79   
 kill =   
@l8  
 gen = @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96   
 kill =   
@l10  
 gen = @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108   
 kill =   
@l11  
 gen = @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125   
 kill =   
@l13  
 gen = @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137   
 kill =   
@l14  
 gen = @l14%t155 @l14%t154   
 kill =   
@l3  
 gen = @l3%t156   
 kill =   
  
--- Correct: size 1523 ---  
@l0  
 gen = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r  
 kill =  
  
@l1  
 gen = @l1%t8 @l1%t9 @l1%t7  
 kill =  
  
@l2  
 gen = @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38  
 kill =  
  
@l4  
 gen = @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50  
 kill =  
  
@l5  
 gen = @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67  
 kill =  
  
@l7  
 gen = @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79  
 kill =  
  
@l8  
 gen = @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96  
 kill =  
  
@l10  
 gen = @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108  
 kill =  
  
@l11  
 gen = @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125  
 kill =  
  
@l13  
 gen = @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137  
 kill =  
  
@l14  
 gen = @l14%t155 @l14%t154  
 kill =  
  
@l3  
 gen = @l3%t156  
 kill =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=4, stime=0, ptime=4, rtime=9, maxvsz=21635072, maxrss=3485696, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #8 =======**  
--- Input: size 1274 ---  
export function w $go(w %t0, w %t1, l %t2, w %t3) {  
@l0  
 %y =l alloc4 4  
 storew %t0, %y  
 %Q =l alloc4 4  
 storew %t1, %Q  
 %t =l alloc8 8  
 storel %t2, %t  
 %N =l alloc4 4  
 storew %t3, %N  
 %x =l alloc4 4  
 %t5 =w loadw %y  
 %t6 =w loadw %Q  
 %t4 =w ceqw %t5, %t6  
 jnz %t4, @l1, @l2  
@l1  
 %t7 =w call $print(...)  
 %t9 =w loadw %N  
 %t8 =w add %t9, 1  
 storew %t8, %N  
 ret 0  
@l2  
 storew 0, %x  
@l4  
 %t14 =w loadw %x  
 %t15 =w loadw %Q  
 %t13 =w csltw %t14, %t15  
 jnz %t13, @l5, @l6  
@l5  
 %t18 =w loadw %x  
 %t19 =w loadw %y  
 %t17 =w call $chk(w %t18, w %t19, ...)  
 %t16 =w ceqw %t17, 0  
 jnz %t16, @l7, @l8  
@l7  
 %t25 =l loadl %t  
 %t26 =w loadw %x  
 %t27 =l extsw %t26  
 %t28 =l mul 8, %t27  
 %t24 =l add %t25, %t28  
 %t23 =l loadl %t24  
 %t29 =w loadw %y  
 %t30 =l extsw %t29  
 %t31 =l mul 4, %t30  
 %t22 =l add %t23, %t31  
 %t32 =w loadw %t22  
 %t21 =w add %t32, 1  
 storew %t21, %t22  
 %t35 =w loadw %y  
 %t34 =w add %t35, 1  
 %t33 =w call $go(w %t34, ...)  
 %t41 =l loadl %t  
 %t42 =w loadw %x  
 %t43 =l extsw %t42  
 %t44 =l mul 8, %t43  
 %t40 =l add %t41, %t44  
 %t39 =l loadl %t40  
 %t45 =w loadw %y  
 %t46 =l extsw %t45  
 %t47 =l mul 4, %t46  
 %t38 =l add %t39, %t47  
 %t48 =w loadw %t38  
 %t37 =w sub %t48, 1  
 storew %t37, %t38  
@l8  
 %t50 =w loadw %x  
 %t49 =w add %t50, 1  
 storew %t49, %x  
 jmp @l4  
@l6  
 ret 0  
}  
  
  
--- Output: size 556 ---  
@l0  
 gen = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%y @l0%Q @l0%t @l0%N @l0%x @l0%t5 @l0%t6 @l0%t4   
 kill =   
@l1  
 gen = @l1%t7 @l1%t9 @l1%t8   
 kill =   
@l2  
 gen =   
 kill =   
@l4  
 gen = @l4%t14 @l4%t15 @l4%t13   
 kill =   
@l5  
 gen = @l5%t18 @l5%t19 @l5%t17 @l5%t16   
 kill =   
@l7  
 gen = @l7%t25 @l7%t26 @l7%t27 @l7%t28 @l7%t24 @l7%t23 @l7%t29 @l7%t30 @l7%t31 @l7%t22 @l7%t32 @l7%t21 @l7%t35 @l7%t34 @l7%t33 @l7%t41 @l7%t42 @l7%t43 @l7%t44 @l7%t40 @l7%t39 @l7%t45 @l7%t46 @l7%t47 @l7%t38 @l7%t48 @l7%t37   
 kill =   
@l8  
 gen = @l8%t50 @l8%t49   
 kill =   
@l6  
 gen =   
 kill =   
  
--- Correct: size 548 ---  
@l0  
 gen = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%y @l0%Q @l0%t @l0%N @l0%x @l0%t5 @l0%t6 @l0%t4  
 kill =  
  
@l1  
 gen = @l1%t7 @l1%t9 @l1%t8  
 kill =  
  
@l2  
 gen =  
 kill =  
  
@l4  
 gen = @l4%t14 @l4%t15 @l4%t13  
 kill =  
  
@l5  
 gen = @l5%t18 @l5%t19 @l5%t17 @l5%t16  
 kill =  
  
@l7  
 gen = @l7%t25 @l7%t26 @l7%t27 @l7%t28 @l7%t24 @l7%t23 @l7%t29 @l7%t30 @l7%t31 @l7%t22 @l7%t32 @l7%t21 @l7%t35 @l7%t34 @l7%t33 @l7%t41 @l7%t42 @l7%t43 @l7%t44 @l7%t40 @l7%t39 @l7%t45 @l7%t46 @l7%t47 @l7%t38 @l7%t48 @l7%t37  
 kill =  
  
@l8  
 gen = @l8%t50 @l8%t49  
 kill =  
  
@l6  
 gen =  
 kill =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=7, maxvsz=21635072, maxrss=3452928, nvcsw=1, nivcsw=4 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #9 =======**  
--- Input: size 843 ---  
export function w $main(w %t0, l %t1, w %t2, w %t3) {  
@l0  
 %ac =l alloc4 4  
 storew %t0, %ac  
 %av =l alloc8 8  
 storel %t1, %av  
 %Q =l alloc4 4  
 storew %t2, %Q  
 %N =l alloc4 4  
 storew %t3, %N  
 %i =l alloc4 4  
 %t =l alloc8 8  
 storew 8, %Q  
 %t8 =w loadw %ac  
 %t6 =w cslew 2, %t8  
 jnz %t6, @l1, @l2  
@l1  
 %t13 =l loadl %av  
 %t12 =l add %t13, 8  
 %t11 =l loadl %t12  
 %t10 =w call $atoi(l %t11, ...)  
 storew %t10, %Q  
@l2  
 storew 0, %i  
@l4  
 %t18 =w loadw %i  
 %t19 =w loadw %Q  
 %t17 =w csltw %t18, %t19  
 jnz %t17, @l5, @l6  
@l5  
 %t22 =w loadw %Q  
 %t21 =w mul %t22, 4  
 %t25 =l loadl %t  
 %t26 =w loadw %i  
 %t27 =l extsw %t26  
 %t28 =l mul 4, %t27  
 %t24 =l add %t25, %t28  
 storew %t21, %t24  
 %t30 =w loadw %i  
 %t29 =w add %t30, 1  
 storew %t29, %i  
 jmp @l4  
@l6  
 %t31 =w call $go(w 0, ...)  
 %t35 =w loadw %N  
 %t33 =w call $printf(l $glo1, w %t35, ...)  
 ret 0  
}  
  
--- Output: size 358 ---  
@l0  
 gen = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%ac @l0%av @l0%Q @l0%N @l0%i @l0%t @l0%t8 @l0%t6   
 kill =   
@l1  
 gen = @l1%t13 @l1%t12 @l1%t11 @l1%t10   
 kill =   
@l2  
 gen =   
 kill =   
@l4  
 gen = @l4%t18 @l4%t19 @l4%t17   
 kill =   
@l5  
 gen = @l5%t22 @l5%t21 @l5%t25 @l5%t26 @l5%t27 @l5%t28 @l5%t24 @l5%t30 @l5%t29   
 kill =   
@l6  
 gen = @l6%t31 @l6%t35 @l6%t33   
 kill =   
  
--- Correct: size 352 ---  
@l0  
 gen = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%ac @l0%av @l0%Q @l0%N @l0%i @l0%t @l0%t8 @l0%t6  
 kill =  
  
@l1  
 gen = @l1%t13 @l1%t12 @l1%t11 @l1%t10  
 kill =  
  
@l2  
 gen =  
 kill =  
  
@l4  
 gen = @l4%t18 @l4%t19 @l4%t17  
 kill =  
  
@l5  
 gen = @l5%t22 @l5%t21 @l5%t25 @l5%t26 @l5%t27 @l5%t28 @l5%t24 @l5%t30 @l5%t29  
 kill =  
  
@l6  
 gen = @l6%t31 @l6%t35 @l6%t33  
 kill =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=4, maxvsz=21635072, maxrss=3547136, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #10 =======**  
--- Input: size 1324 ---  
export function w $main() {  
@l0  
 %n =l alloc4 4  
 %nv =l alloc4 4  
 %c =l alloc4 4  
 %cmax =l alloc4 4  
 %mem =l alloc8 8  
 storew 0, %cmax  
 storew 1, %nv  
@l1  
 %t5 =w loadw %nv  
 %t4 =w csltw %t5, 10  
 jnz %t4, @l2, @l3  
@l2  
 %t8 =w loadw %nv  
 storew %t8, %n  
 storew 0, %c  
@l4  
 %t12 =w loadw %n  
 %t11 =w cnew %t12, 1  
 jnz %t11, @l5, @l6  
@l5  
 %t15 =w loadw %n  
 %t16 =w loadw %nv  
 %t14 =w csltw %t15, %t16  
 jnz %t14, @l7, @l8  
@l7  
 %t19 =w loadw %c  
 %t22 =l loadl %mem  
 %t23 =w loadw %n  
 %t24 =l extsw %t23  
 %t25 =l mul 4, %t24  
 %t21 =l add %t22, %t25  
 %t20 =w loadw %t21  
 %t18 =w add %t19, %t20  
 storew %t18, %c  
 jmp @l6  
@l8  
 %t27 =w loadw %n  
 %t26 =w and %t27, 1  
 jnz %t26, @l10, @l11  
@l10  
 %t33 =w loadw %n  
 %t31 =w mul 3, %t33  
 %t30 =w add %t31, 1  
 storew %t30, %n  
 jmp @l12  
@l11  
 %t37 =w loadw %n  
 %t36 =w div %t37, 2  
 storew %t36, %n  
@l12  
 %t40 =w loadw %c  
 %t39 =w add %t40, 1  
 storew %t39, %c  
 jmp @l4  
@l6  
 %t42 =w loadw %c  
 %t44 =l loadl %mem  
 %t45 =w loadw %nv  
 %t46 =l extsw %t45  
 %t47 =l mul 4, %t46  
 %t43 =l add %t44, %t47  
 storew %t42, %t43  
 %t49 =w loadw %cmax  
 %t50 =w loadw %c  
 %t48 =w csltw %t49, %t50  
 jnz %t48, @l13, @l14  
@l13  
 %t52 =w loadw %c  
 storew %t52, %cmax  
@l14  
 %t54 =w loadw %nv  
 %t53 =w add %t54, 1  
 storew %t53, %nv  
 jmp @l1  
@l3  
 %t57 =w loadw %cmax  
 %t55 =w call $printf(l $glo1, w %t57, ...)  
 ret 0  
}  
  
--- Output: size 654 ---  
@l0  
 gen = @l0%n @l0%nv @l0%c @l0%cmax @l0%mem   
 kill =   
@l1  
 gen = @l1%t5 @l1%t4   
 kill =   
@l2  
 gen = @l2%t8   
 kill =   
@l4  
 gen = @l4%t12 @l4%t11   
 kill =   
@l5  
 gen = @l5%t15 @l5%t16 @l5%t14   
 kill =   
@l7  
 gen = @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18   
 kill =   
@l8  
 gen = @l8%t27 @l8%t26   
 kill =   
@l10  
 gen = @l10%t33 @l10%t31 @l10%t30   
 kill =   
@l11  
 gen = @l11%t37 @l11%t36   
 kill =   
@l12  
 gen = @l12%t40 @l12%t39   
 kill =   
@l6  
 gen = @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48   
 kill =   
@l13  
 gen = @l13%t52   
 kill =   
@l14  
 gen = @l14%t54 @l14%t53   
 kill =   
@l3  
 gen = @l3%t57 @l3%t55   
 kill =   
  
--- Correct: size 640 ---  
@l0  
 gen = @l0%n @l0%nv @l0%c @l0%cmax @l0%mem  
 kill =  
  
@l1  
 gen = @l1%t5 @l1%t4  
 kill =  
  
@l2  
 gen = @l2%t8  
 kill =  
  
@l4  
 gen = @l4%t12 @l4%t11  
 kill =  
  
@l5  
 gen = @l5%t15 @l5%t16 @l5%t14  
 kill =  
  
@l7  
 gen = @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18  
 kill =  
  
@l8  
 gen = @l8%t27 @l8%t26  
 kill =  
  
@l10  
 gen = @l10%t33 @l10%t31 @l10%t30  
 kill =  
  
@l11  
 gen = @l11%t37 @l11%t36  
 kill =  
  
@l12  
 gen = @l12%t40 @l12%t39  
 kill =  
  
@l6  
 gen = @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48  
 kill =  
  
@l13  
 gen = @l13%t52  
 kill =  
  
@l14  
 gen = @l14%t54 @l14%t53  
 kill =  
  
@l3  
 gen = @l3%t57 @l3%t55  
 kill =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=5, maxvsz=21635072, maxrss=3440640, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #11 =======**  
--- Input: size 1359 ---  
export function w $main() {  
@l0  
 %i =l alloc4 4  
 %a =l alloc4 4  
 %b =l alloc4 4  
 %c =l alloc4 4  
 %d =l alloc4 4  
 storew 1, %a  
@l1  
 %t3 =w loadw %a  
 %t2 =w csltw %t3, 1000  
 jnz %t2, @l2, @l3  
@l2  
 %t7 =w loadw %a  
 %t6 =w add %t7, 1  
 storew %t6, %b  
@l4  
 %t10 =w loadw %b  
 %t9 =w csltw %t10, 1000  
 jnz %t9, @l5, @l6  
@l5  
 %t15 =w loadw %a  
 %t16 =w loadw %a  
 %t14 =w mul %t15, %t16  
 %t18 =w loadw %b  
 %t19 =w loadw %b  
 %t17 =w mul %t18, %t19  
 %t13 =w add %t14, %t17  
 storew %t13, %d  
 storew 0, %i  
@l7  
 %t23 =w loadw %i  
 %t22 =w csltw %t23, 1000  
 jnz %t22, @l8, @l9  
@l8  
 %t27 =w loadw %i  
 %t28 =w loadw %i  
 %t26 =w mul %t27, %t28  
 %t29 =w loadw %d  
 %t25 =w ceqw %t26, %t29  
 jnz %t25, @l10, @l11  
@l10  
 %t31 =w loadw %i  
 storew %t31, %c  
 %t33 =w loadw %b  
 %t34 =w loadw %c  
 %t32 =w csltw %t33, %t34  
 jnz %t32, @l16, @l14  
@l16  
 %t38 =w loadw %a  
 %t39 =w loadw %b  
 %t37 =w add %t38, %t39  
 %t40 =w loadw %c  
 %t36 =w add %t37, %t40  
 %t35 =w ceqw %t36, 1000  
 jnz %t35, @l13, @l14  
@l13  
 %t46 =w loadw %a  
 %t47 =w loadw %b  
 %t45 =w mul %t46, %t47  
 %t48 =w loadw %c  
 %t44 =w mul %t45, %t48  
 %t42 =w call $printf(l $glo1, w %t44, ...)  
 ret 0  
@l14  
 jmp @l9  
@l11  
 %t51 =w loadw %i  
 %t50 =w add %t51, 1  
 storew %t50, %i  
 jmp @l7  
@l9  
 %t53 =w loadw %b  
 %t52 =w add %t53, 1  
 storew %t52, %b  
 jmp @l4  
@l6  
 %t55 =w loadw %a  
 %t54 =w add %t55, 1  
 storew %t54, %a  
 jmp @l1  
@l3  
 ret 0  
}  
  
--- Output: size 699 ---  
@l0  
 gen = @l0%i @l0%a @l0%b @l0%c @l0%d   
 kill =   
@l1  
 gen = @l1%t3 @l1%t2   
 kill =   
@l2  
 gen = @l2%t7 @l2%t6   
 kill =   
@l4  
 gen = @l4%t10 @l4%t9   
 kill =   
@l5  
 gen = @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13   
 kill =   
@l7  
 gen = @l7%t23 @l7%t22   
 kill =   
@l8  
 gen = @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25   
 kill =   
@l10  
 gen = @l10%t31 @l10%t33 @l10%t34 @l10%t32   
 kill =   
@l16  
 gen = @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35   
 kill =   
@l13  
 gen = @l13%t46 @l13%t47 @l13%t45 @l13%t48 @l13%t44 @l13%t42   
 kill =   
@l14  
 gen =   
 kill =   
@l11  
 gen = @l11%t51 @l11%t50   
 kill =   
@l9  
 gen = @l9%t53 @l9%t52   
 kill =   
@l6  
 gen = @l6%t55 @l6%t54   
 kill =   
@l3  
 gen =   
 kill =   
  
--- Correct: size 684 ---  
@l0  
 gen = @l0%i @l0%a @l0%b @l0%c @l0%d  
 kill =  
  
@l1  
 gen = @l1%t3 @l1%t2  
 kill =  
  
@l2  
 gen = @l2%t7 @l2%t6  
 kill =  
  
@l4  
 gen = @l4%t10 @l4%t9  
 kill =  
  
@l5  
 gen = @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13  
 kill =  
  
@l7  
 gen = @l7%t23 @l7%t22  
 kill =  
  
@l8  
 gen = @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25  
 kill =  
  
@l10  
 gen = @l10%t31 @l10%t33 @l10%t34 @l10%t32  
 kill =  
  
@l16  
 gen = @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35  
 kill =  
  
@l13  
 gen = @l13%t46 @l13%t47 @l13%t45 @l13%t48 @l13%t44 @l13%t42  
 kill =  
  
@l14  
 gen =  
 kill =  
  
@l11  
 gen = @l11%t51 @l11%t50  
 kill =  
  
@l9  
 gen = @l9%t53 @l9%t52  
 kill =  
  
@l6  
 gen = @l6%t55 @l6%t54  
 kill =  
  
@l3  
 gen =  
 kill =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=5, maxvsz=21635072, maxrss=3432448, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #12 =======**  
--- Input: size 726 ---  
export function w $board() {  
@l0  
 %x =l alloc4 4  
 %y =l alloc4 4  
 %b =l alloc8 8  
 storew 0, %y  
@l1  
 %t3 =w loadw %y  
 %t2 =w csltw %t3, 8  
 jnz %t2, @l2, @l3  
@l2  
 storew 0, %x  
@l4  
 %t8 =w loadw %x  
 %t7 =w csltw %t8, 8  
 jnz %t7, @l5, @l6  
@l5  
 %t16 =l loadl %b  
 %t17 =w loadw %x  
 %t18 =l extsw %t17  
 %t19 =l mul 8, %t18  
 %t15 =l add %t16, %t19  
 %t14 =l loadl %t15  
 %t20 =w loadw %y  
 %t21 =l extsw %t20  
 %t22 =l mul 4, %t21  
 %t13 =l add %t14, %t22  
 %t12 =w loadw %t13  
 %t10 =w call $printf(l $glo1, w %t12, ...)  
 %t24 =w loadw %x  
 %t23 =w add %t24, 1  
 storew %t23, %x  
 jmp @l4  
@l6  
 %t25 =w call $printf(l $glo2, ...)  
 %t28 =w loadw %y  
 %t27 =w add %t28, 1  
 storew %t27, %y  
 jmp @l1  
@l3  
 %t29 =w call $printf(l $glo3, ...)  
 ret 0  
}  
  
--- Output: size 337 ---  
@l0  
 gen = @l0%x @l0%y @l0%b   
 kill =   
@l1  
 gen = @l1%t3 @l1%t2   
 kill =   
@l2  
 gen =   
 kill =   
@l4  
 gen = @l4%t8 @l4%t7   
 kill =   
@l5  
 gen = @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l5%t10 @l5%t24 @l5%t23   
 kill =   
@l6  
 gen = @l6%t25 @l6%t28 @l6%t27   
 kill =   
@l3  
 gen = @l3%t29   
 kill =   
  
--- Correct: size 330 ---  
@l0  
 gen = @l0%x @l0%y @l0%b  
 kill =  
  
@l1  
 gen = @l1%t3 @l1%t2  
 kill =  
  
@l2  
 gen =  
 kill =  
  
@l4  
 gen = @l4%t8 @l4%t7  
 kill =  
  
@l5  
 gen = @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l5%t10 @l5%t24 @l5%t23  
 kill =  
  
@l6  
 gen = @l6%t25 @l6%t28 @l6%t27  
 kill =  
  
@l3  
 gen = @l3%t29  
 kill =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=4, maxvsz=21635072, maxrss=3461120, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #13 =======**  
--- Input: size 641 ---  
export function w $chk(w %t0, w %t1) {  
@l0  
 %x =l alloc4 4  
 storew %t0, %x  
 %y =l alloc4 4  
 storew %t1, %y  
 %b =l alloc8 8  
 %t3 =w loadw %x  
 %t2 =w csltw %t3, 0  
 jnz %t2, @l1, @l6  
@l6  
 %t7 =w loadw %x  
 %t5 =w csltw 7, %t7  
 jnz %t5, @l1, @l5  
@l5  
 %t9 =w loadw %y  
 %t8 =w csltw %t9, 0  
 jnz %t8, @l1, @l4  
@l4  
 %t13 =w loadw %y  
 %t11 =w csltw 7, %t13  
 jnz %t11, @l1, @l2  
@l1  
 ret 0  
@l2  
 %t20 =l loadl %b  
 %t21 =w loadw %x  
 %t22 =l extsw %t21  
 %t23 =l mul 8, %t22  
 %t19 =l add %t20, %t23  
 %t18 =l loadl %t19  
 %t24 =w loadw %y  
 %t25 =l extsw %t24  
 %t26 =l mul 4, %t25  
 %t17 =l add %t18, %t26  
 %t16 =w loadw %t17  
 %t15 =w ceqw %t16, 0  
 ret %t15  
}  
  
  
--- Output: size 312 ---  
@l0  
 gen = @l0%t0 @l0%t1 @l0%x @l0%y @l0%b @l0%t3 @l0%t2   
 kill =   
@l6  
 gen = @l6%t7 @l6%t5   
 kill =   
@l5  
 gen = @l5%t9 @l5%t8   
 kill =   
@l4  
 gen = @l4%t13 @l4%t11   
 kill =   
@l1  
 gen =   
 kill =   
@l2  
 gen = @l2%t20 @l2%t21 @l2%t22 @l2%t23 @l2%t19 @l2%t18 @l2%t24 @l2%t25 @l2%t26 @l2%t17 @l2%t16 @l2%t15   
 kill =   
  
--- Correct: size 306 ---  
@l0  
 gen = @l0%t0 @l0%t1 @l0%x @l0%y @l0%b @l0%t3 @l0%t2  
 kill =  
  
@l6  
 gen = @l6%t7 @l6%t5  
 kill =  
  
@l5  
 gen = @l5%t9 @l5%t8  
 kill =  
  
@l4  
 gen = @l4%t13 @l4%t11  
 kill =  
  
@l1  
 gen =  
 kill =  
  
@l2  
 gen = @l2%t20 @l2%t21 @l2%t22 @l2%t23 @l2%t19 @l2%t18 @l2%t24 @l2%t25 @l2%t26 @l2%t17 @l2%t16 @l2%t15  
 kill =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=4, maxvsz=21635072, maxrss=3383296, nvcsw=1, nivcsw=3 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #14 =======**  
--- Input: size 2185 ---  
export function w $go(w %t0, w %t1, w %t2) {  
@l0  
 %k =l alloc4 4  
 storew %t0, %k  
 %x =l alloc4 4  
 storew %t1, %x  
 %y =l alloc4 4  
 storew %t2, %y  
 %i =l alloc4 4  
 %j =l alloc4 4  
 %b =l alloc8 8  
 %N =l alloc4 4  
 %t4 =w loadw %k  
 %t8 =l loadl %b  
 %t9 =w loadw %x  
 %t10 =l extsw %t9  
 %t11 =l mul 8, %t10  
 %t7 =l add %t8, %t11  
 %t6 =l loadl %t7  
 %t12 =w loadw %y  
 %t13 =l extsw %t12  
 %t14 =l mul 4, %t13  
 %t5 =l add %t6, %t14  
 storew %t4, %t5  
 %t16 =w loadw %k  
 %t15 =w ceqw %t16, 64  
 jnz %t15, @l1, @l2  
@l1  
 %t19 =w loadw %x  
 %t18 =w cnew %t19, 2  
 jnz %t18, @l8, @l5  
@l8  
 %t22 =w loadw %y  
 %t21 =w cnew %t22, 0  
 jnz %t21, @l7, @l5  
@l7  
 %t28 =w loadw %x  
 %t27 =w sub %t28, 2  
 %t26 =w call $abs(w %t27, ...)  
 %t31 =w loadw %y  
 %t30 =w call $abs(w %t31, ...)  
 %t25 =w add %t26, %t30  
 %t24 =w ceqw %t25, 3  
 jnz %t24, @l4, @l5  
@l4  
 %t33 =w call $board(...)  
 %t35 =w loadw %N  
 %t34 =w add %t35, 1  
 storew %t34, %N  
 %t37 =w loadw %N  
 %t36 =w ceqw %t37, 10  
 jnz %t36, @l9, @l10  
@l9  
 %t39 =w call $exit(w 0, ...)  
@l10  
@l5  
 jmp @l3  
@l2  
 %t42 =w sub 0, 2  
 storew %t42, %i  
@l12  
 %t46 =w loadw %i  
 %t45 =w cslew %t46, 2  
 jnz %t45, @l13, @l14  
@l13  
 %t49 =w sub 0, 2  
 storew %t49, %j  
@l15  
 %t53 =w loadw %j  
 %t52 =w cslew %t53, 2  
 jnz %t52, @l16, @l17  
@l16  
 %t58 =w loadw %i  
 %t57 =w call $abs(w %t58, ...)  
 %t60 =w loadw %j  
 %t59 =w call $abs(w %t60, ...)  
 %t56 =w add %t57, %t59  
 %t55 =w ceqw %t56, 3  
 jnz %t55, @l21, @l19  
@l21  
 %t64 =w loadw %x  
 %t65 =w loadw %i  
 %t63 =w add %t64, %t65  
 %t67 =w loadw %y  
 %t68 =w loadw %j  
 %t66 =w add %t67, %t68  
 %t62 =w call $chk(w %t63, w %t66, ...)  
 jnz %t62, @l18, @l19  
@l18  
 %t71 =w loadw %k  
 %t70 =w add %t71, 1  
 %t74 =w loadw %x  
 %t75 =w loadw %i  
 %t73 =w add %t74, %t75  
 %t77 =w loadw %y  
 %t78 =w loadw %j  
 %t76 =w add %t77, %t78  
 %t69 =w call $go(w %t70, w %t73, w %t76, ...)  
@l19  
 %t80 =w loadw %j  
 %t79 =w add %t80, 1  
 storew %t79, %j  
 jmp @l15  
@l17  
 %t82 =w loadw %i  
 %t81 =w add %t82, 1  
 storew %t81, %i  
 jmp @l12  
@l14  
@l3  
 %t88 =l loadl %b  
 %t89 =w loadw %x  
 %t90 =l extsw %t89  
 %t91 =l mul 8, %t90  
 %t87 =l add %t88, %t91  
 %t86 =l loadl %t87  
 %t92 =w loadw %y  
 %t93 =l extsw %t92  
 %t94 =l mul 4, %t93  
 %t85 =l add %t86, %t94  
 storew 0, %t85  
 ret 0  
}  
  
  
--- Output: size 1073 ---  
@l0  
 gen = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15   
 kill =   
@l1  
 gen = @l1%t19 @l1%t18   
 kill =   
@l8  
 gen = @l8%t22 @l8%t21   
 kill =   
@l7  
 gen = @l7%t28 @l7%t27 @l7%t26 @l7%t31 @l7%t30 @l7%t25 @l7%t24   
 kill =   
@l4  
 gen = @l4%t33 @l4%t35 @l4%t34 @l4%t37 @l4%t36   
 kill =   
@l9  
 gen = @l9%t39   
 kill =   
@l10  
 gen =   
 kill =   
@l5  
 gen =   
 kill =   
@l2  
 gen = @l2%t42   
 kill =   
@l12  
 gen = @l12%t46 @l12%t45   
 kill =   
@l13  
 gen = @l13%t49   
 kill =   
@l15  
 gen = @l15%t53 @l15%t52   
 kill =   
@l16  
 gen = @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55   
 kill =   
@l21  
 gen = @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62   
 kill =   
@l18  
 gen = @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69   
 kill =   
@l19  
 gen = @l19%t80 @l19%t79   
 kill =   
@l17  
 gen = @l17%t82 @l17%t81   
 kill =   
@l14  
 gen =   
 kill =   
@l3  
 gen = @l3%t88 @l3%t89 @l3%t90 @l3%t91 @l3%t87 @l3%t86 @l3%t92 @l3%t93 @l3%t94 @l3%t85   
 kill =   
  
--- Correct: size 1054 ---  
@l0  
 gen = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15  
 kill =  
  
@l1  
 gen = @l1%t19 @l1%t18  
 kill =  
  
@l8  
 gen = @l8%t22 @l8%t21  
 kill =  
  
@l7  
 gen = @l7%t28 @l7%t27 @l7%t26 @l7%t31 @l7%t30 @l7%t25 @l7%t24  
 kill =  
  
@l4  
 gen = @l4%t33 @l4%t35 @l4%t34 @l4%t37 @l4%t36  
 kill =  
  
@l9  
 gen = @l9%t39  
 kill =  
  
@l10  
 gen =  
 kill =  
  
@l5  
 gen =  
 kill =  
  
@l2  
 gen = @l2%t42  
 kill =  
  
@l12  
 gen = @l12%t46 @l12%t45  
 kill =  
  
@l13  
 gen = @l13%t49  
 kill =  
  
@l15  
 gen = @l15%t53 @l15%t52  
 kill =  
  
@l16  
 gen = @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55  
 kill =  
  
@l21  
 gen = @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62  
 kill =  
  
@l18  
 gen = @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69  
 kill =  
  
@l19  
 gen = @l19%t80 @l19%t79  
 kill =  
  
@l17  
 gen = @l17%t82 @l17%t81  
 kill =  
  
@l14  
 gen =  
 kill =  
  
@l3  
 gen = @l3%t88 @l3%t89 @l3%t90 @l3%t91 @l3%t87 @l3%t86 @l3%t92 @l3%t93 @l3%t94 @l3%t85  
 kill =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=4, stime=0, ptime=4, rtime=6, maxvsz=21635072, maxrss=3616768, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #15 =======**  
--- Input: size 392 ---  
export function w $main() {  
@l0  
 %i =l alloc4 4  
 %b =l alloc8 8  
 %t0 =w call $printf(l $glo1, ...)  
 storew 0, %i  
@l1  
 %t5 =w loadw %i  
 %t4 =w csltw %t5, 8  
 jnz %t4, @l2, @l3  
@l2  
 %t8 =w mul 8, 4  
 %t12 =l loadl %b  
 %t13 =w loadw %i  
 %t14 =l extsw %t13  
 %t15 =l mul 4, %t14  
 %t11 =l add %t12, %t15  
 storew %t8, %t11  
 %t17 =w loadw %i  
 %t16 =w add %t17, 1  
 storew %t16, %i  
 jmp @l1  
@l3  
 ret 0  
}  
  
--- Output: size 180 ---  
@l0  
 gen = @l0%i @l0%b @l0%t0   
 kill =   
@l1  
 gen = @l1%t5 @l1%t4   
 kill =   
@l2  
 gen = @l2%t8 @l2%t12 @l2%t13 @l2%t14 @l2%t15 @l2%t11 @l2%t17 @l2%t16   
 kill =   
@l3  
 gen =   
 kill =   
  
--- Correct: size 176 ---  
@l0  
 gen = @l0%i @l0%b @l0%t0  
 kill =  
  
@l1  
 gen = @l1%t5 @l1%t4  
 kill =  
  
@l2  
 gen = @l2%t8 @l2%t12 @l2%t13 @l2%t14 @l2%t15 @l2%t11 @l2%t17 @l2%t16  
 kill =  
  
@l3  
 gen =  
 kill =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=4, maxvsz=21635072, maxrss=3457024, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=4169728, maxrss=1744896, nvcsw=1, nivcsw=1 }

**2rd**

**====== Test #1 =======**  
--- Input: size 180 ---  
function w $main() {  
@start  
 %x =w copy 5  
@loop  
 %x =w mul %x, %x  
 %cond =w csgew %x, 200  
 jnz %cond, @end, @loop  
@end  
 %t =w call $printf(l $fmt, w %x)  
 ret 0  
}  
  
--- Output: size 95 ---  
@start  
 rd\_in =   
@loop  
 rd\_in = @start%x @loop%x @loop%cond   
@end  
 rd\_in = @loop%x @loop%cond   
  
--- Correct: size 94 ---  
@start  
 rd\_in =  
  
@loop  
 rd\_in = @start%x @loop%x @loop%cond  
  
@end  
 rd\_in = @loop%x @loop%cond  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=3, maxvsz=21655552, maxrss=3469312, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #2 =======**  
--- Input: size 259 ---  
export function $sieve(w %n, l %prime) {  
@fill0.cond  
 %uuu =l alloc4 4  
 %cond1 =w csgtw %n, 0  
 jnz %cond1, @fill0.body, @fill2.header  
  
@fill0.body  
 storeb 0, %prime  
  
@fill0.exit  
 %n =w cast 2  
 %uuu =l alloc8 2  
 %uuu =l alloc16 1  
  
@fill2.header  
 ret  
}  
  
--- Output: size 318 ---  
@fill0.cond  
 rd\_in =   
@fill0.body  
 rd\_in = @fill0.cond%n @fill0.cond%prime @fill0.cond%uuu @fill0.cond%cond1   
@fill0.exit  
 rd\_in = @fill0.cond%n @fill0.cond%prime @fill0.cond%uuu @fill0.cond%cond1   
@fill2.header  
 rd\_in = @fill0.cond%n @fill0.cond%prime @fill0.cond%uuu @fill0.cond%cond1 @fill0.exit%n @fill0.exit%uuu   
  
--- Correct: size 316 ---  
@fill2.header rd\_in = @fill0.cond%cond1 @fill0.cond%uuu @fill0.cond%prime @fill0.cond%n @fill0.exit%n @fill0.exit%uuu  
@fill0.exit rd\_in = @fill0.cond%cond1 @fill0.cond%uuu @fill0.cond%prime @fill0.cond%n  
@fill0.body rd\_in = @fill0.cond%cond1 @fill0.cond%uuu @fill0.cond%prime @fill0.cond%n  
@fill0.cond rd\_in =  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=21655552, maxrss=3485696, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #3 =======**  
--- Input: size 1963 ---  
export function w $plot(w %t0, w %t1, w %t2) {  
@l0  
 %x =l alloc4 4  
 storew %t0, %x  
 %y =l alloc4 4  
 storew %t1, %y  
 %rnd =l alloc4 4  
 storew %t2, %rnd  
 %n =l alloc4 4  
 %fx =l alloc4 4  
 %fy =l alloc4 4  
 %zx =l alloc4 4  
 %zy =l alloc4 4  
 %nx =l alloc4 4  
 %ny =l alloc4 4  
 %W =l alloc4 4  
 %H =l alloc4 4  
 %col =l alloc8 8  
 %t7 =w loadw %x  
 %t9 =w loadw %W  
 %t8 =w div %t9, 2  
 %t6 =w sub %t7, %t8  
 %t5 =w mul %t6, 4000  
 %t12 =w loadw %W  
 %t4 =w div %t5, %t12  
 storew %t4, %fx  
 %t17 =w loadw %y  
 %t19 =w loadw %H  
 %t18 =w div %t19, 2  
 %t16 =w sub %t17, %t18  
 %t15 =w mul %t16, 4000  
 %t22 =w loadw %H  
 %t14 =w div %t15, %t22  
 storew %t14, %fy  
 %t24 =w loadw %fx  
 storew %t24, %zx  
 %t26 =w loadw %fy  
 storew %t26, %zy  
 storew 0, %n  
@l1  
 %t30 =w loadw %n  
 %t29 =w csltw %t30, 200  
 jnz %t29, @l2, @l3  
@l2  
 %t36 =w loadw %zx  
 %t37 =w loadw %zx  
 %t35 =w mul %t36, %t37  
 %t39 =w loadw %zy  
 %t40 =w loadw %zy  
 %t38 =w mul %t39, %t40  
 %t34 =w add %t35, %t38  
 %t32 =w csltw 4000000, %t34  
 jnz %t32, @l4, @l5  
@l4  
 jmp @l3  
@l5  
 %t46 =w loadw %zx  
 %t47 =w loadw %zx  
 %t45 =w mul %t46, %t47  
 %t44 =w div %t45, 1000  
 %t51 =w loadw %zy  
 %t52 =w loadw %zy  
 %t50 =w mul %t51, %t52  
 %t49 =w div %t50, 1000  
 %t43 =w sub %t44, %t49  
 %t54 =w loadw %fx  
 %t42 =w add %t43, %t54  
 storew %t42, %nx  
 %t59 =w loadw %zx  
 %t60 =w loadw %zy  
 %t58 =w mul %t59, %t60  
 %t57 =w div %t58, 500  
 %t62 =w loadw %fy  
 %t56 =w add %t57, %t62  
 storew %t56, %ny  
 %t64 =w loadw %nx  
 storew %t64, %zx  
 %t66 =w loadw %ny  
 storew %t66, %zy  
 %t68 =w loadw %n  
 %t67 =w add %t68, 1  
 storew %t67, %n  
 jmp @l1  
@l3  
 %t72 =l loadl %col  
 %t73 =w loadw %n  
 %t74 =l extsw %t73  
 %t75 =l mul 4, %t74  
 %t71 =l add %t72, %t75  
 %t70 =w loadw %t71  
 storew %t70, %n  
 %t77 =w loadw %rnd  
 %t79 =w loadw %n  
 %t80 =w loadw %n  
 %t76 =w call $SDL\_SetRenderDrawColor(w %t77, w 100, w %t79, w %t80, w 255, ...)  
 %t83 =w loadw %rnd  
 %t84 =w loadw %x  
 %t85 =w loadw %y  
 %t82 =w call $SDL\_RenderDrawPoint(w %t83, w %t84, w %t85, ...)  
 ret 0  
}  
  
  
--- Output: size 2479 ---  
@l0  
 rd\_in =   
@l1  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%x @l0%y @l0%rnd @l0%n @l0%fx @l0%fy @l0%zx @l0%zy @l0%nx @l0%ny @l0%W @l0%H @l0%col @l0%t7 @l0%t9 @l0%t8 @l0%t6 @l0%t5 @l0%t12 @l0%t4 @l0%t17 @l0%t19 @l0%t18 @l0%t16 @l0%t15 @l0%t22 @l0%t14 @l0%t24 @l0%t26 @l5%t46 @l5%t47 @l5%t45 @l5%t44 @l5%t51 @l5%t52 @l5%t50 @l5%t49 @l5%t43 @l5%t54 @l5%t42 @l5%t59 @l5%t60 @l5%t58 @l5%t57 @l5%t62 @l5%t56 @l5%t64 @l5%t66 @l5%t68 @l5%t67 @l2%t36 @l2%t37 @l2%t35 @l2%t39 @l2%t40 @l2%t38 @l2%t34 @l2%t32 @l1%t30 @l1%t29   
@l2  
 rd\_in = @l1%t30 @l1%t29 @l0%t0 @l0%t1 @l0%t2 @l0%x @l0%y @l0%rnd @l0%n @l0%fx @l0%fy @l0%zx @l0%zy @l0%nx @l0%ny @l0%W @l0%H @l0%col @l0%t7 @l0%t9 @l0%t8 @l0%t6 @l0%t5 @l0%t12 @l0%t4 @l0%t17 @l0%t19 @l0%t18 @l0%t16 @l0%t15 @l0%t22 @l0%t14 @l0%t24 @l0%t26 @l5%t46 @l5%t47 @l5%t45 @l5%t44 @l5%t51 @l5%t52 @l5%t50 @l5%t49 @l5%t43 @l5%t54 @l5%t42 @l5%t59 @l5%t60 @l5%t58 @l5%t57 @l5%t62 @l5%t56 @l5%t64 @l5%t66 @l5%t68 @l5%t67 @l2%t36 @l2%t37 @l2%t35 @l2%t39 @l2%t40 @l2%t38 @l2%t34 @l2%t32   
@l4  
 rd\_in = @l2%t36 @l2%t37 @l2%t35 @l2%t39 @l2%t40 @l2%t38 @l2%t34 @l2%t32 @l1%t30 @l1%t29 @l0%t0 @l0%t1 @l0%t2 @l0%x @l0%y @l0%rnd @l0%n @l0%fx @l0%fy @l0%zx @l0%zy @l0%nx @l0%ny @l0%W @l0%H @l0%col @l0%t7 @l0%t9 @l0%t8 @l0%t6 @l0%t5 @l0%t12 @l0%t4 @l0%t17 @l0%t19 @l0%t18 @l0%t16 @l0%t15 @l0%t22 @l0%t14 @l0%t24 @l0%t26 @l5%t46 @l5%t47 @l5%t45 @l5%t44 @l5%t51 @l5%t52 @l5%t50 @l5%t49 @l5%t43 @l5%t54 @l5%t42 @l5%t59 @l5%t60 @l5%t58 @l5%t57 @l5%t62 @l5%t56 @l5%t64 @l5%t66 @l5%t68 @l5%t67   
@l5  
 rd\_in = @l2%t36 @l2%t37 @l2%t35 @l2%t39 @l2%t40 @l2%t38 @l2%t34 @l2%t32 @l1%t30 @l1%t29 @l0%t0 @l0%t1 @l0%t2 @l0%x @l0%y @l0%rnd @l0%n @l0%fx @l0%fy @l0%zx @l0%zy @l0%nx @l0%ny @l0%W @l0%H @l0%col @l0%t7 @l0%t9 @l0%t8 @l0%t6 @l0%t5 @l0%t12 @l0%t4 @l0%t17 @l0%t19 @l0%t18 @l0%t16 @l0%t15 @l0%t22 @l0%t14 @l0%t24 @l0%t26 @l5%t46 @l5%t47 @l5%t45 @l5%t44 @l5%t51 @l5%t52 @l5%t50 @l5%t49 @l5%t43 @l5%t54 @l5%t42 @l5%t59 @l5%t60 @l5%t58 @l5%t57 @l5%t62 @l5%t56 @l5%t64 @l5%t66 @l5%t68 @l5%t67   
@l3  
 rd\_in = @l1%t30 @l1%t29 @l0%t0 @l0%t1 @l0%t2 @l0%x @l0%y @l0%rnd @l0%n @l0%fx @l0%fy @l0%zx @l0%zy @l0%nx @l0%ny @l0%W @l0%H @l0%col @l0%t7 @l0%t9 @l0%t8 @l0%t6 @l0%t5 @l0%t12 @l0%t4 @l0%t17 @l0%t19 @l0%t18 @l0%t16 @l0%t15 @l0%t22 @l0%t14 @l0%t24 @l0%t26 @l5%t46 @l5%t47 @l5%t45 @l5%t44 @l5%t51 @l5%t52 @l5%t50 @l5%t49 @l5%t43 @l5%t54 @l5%t42 @l5%t59 @l5%t60 @l5%t58 @l5%t57 @l5%t62 @l5%t56 @l5%t64 @l5%t66 @l5%t68 @l5%t67 @l2%t36 @l2%t37 @l2%t35 @l2%t39 @l2%t40 @l2%t38 @l2%t34 @l2%t32   
  
--- Correct: size 2479 ---  
@l0  
 rd\_in =  
  
@l1  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%x @l0%y @l0%rnd @l0%n @l0%fx @l0%fy @l0%zx @l0%zy @l0%nx @l0%ny @l0%W @l0%H @l0%col @l0%t7 @l0%t9 @l0%t8 @l0%t6 @l0%t5 @l0%t12 @l0%t4 @l0%t17 @l0%t19 @l0%t18 @l0%t16 @l0%t15 @l0%t22 @l0%t14 @l0%t24 @l0%t26 @l1%t30 @l1%t29 @l2%t36 @l2%t37 @l2%t35 @l2%t39 @l2%t40 @l2%t38 @l2%t34 @l2%t32 @l5%t46 @l5%t47 @l5%t45 @l5%t44 @l5%t51 @l5%t52 @l5%t50 @l5%t49 @l5%t43 @l5%t54 @l5%t42 @l5%t59 @l5%t60 @l5%t58 @l5%t57 @l5%t62 @l5%t56 @l5%t64 @l5%t66 @l5%t68 @l5%t67  
  
@l2  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%x @l0%y @l0%rnd @l0%n @l0%fx @l0%fy @l0%zx @l0%zy @l0%nx @l0%ny @l0%W @l0%H @l0%col @l0%t7 @l0%t9 @l0%t8 @l0%t6 @l0%t5 @l0%t12 @l0%t4 @l0%t17 @l0%t19 @l0%t18 @l0%t16 @l0%t15 @l0%t22 @l0%t14 @l0%t24 @l0%t26 @l1%t30 @l1%t29 @l2%t36 @l2%t37 @l2%t35 @l2%t39 @l2%t40 @l2%t38 @l2%t34 @l2%t32 @l5%t46 @l5%t47 @l5%t45 @l5%t44 @l5%t51 @l5%t52 @l5%t50 @l5%t49 @l5%t43 @l5%t54 @l5%t42 @l5%t59 @l5%t60 @l5%t58 @l5%t57 @l5%t62 @l5%t56 @l5%t64 @l5%t66 @l5%t68 @l5%t67  
  
@l4  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%x @l0%y @l0%rnd @l0%n @l0%fx @l0%fy @l0%zx @l0%zy @l0%nx @l0%ny @l0%W @l0%H @l0%col @l0%t7 @l0%t9 @l0%t8 @l0%t6 @l0%t5 @l0%t12 @l0%t4 @l0%t17 @l0%t19 @l0%t18 @l0%t16 @l0%t15 @l0%t22 @l0%t14 @l0%t24 @l0%t26 @l1%t30 @l1%t29 @l2%t36 @l2%t37 @l2%t35 @l2%t39 @l2%t40 @l2%t38 @l2%t34 @l2%t32 @l5%t46 @l5%t47 @l5%t45 @l5%t44 @l5%t51 @l5%t52 @l5%t50 @l5%t49 @l5%t43 @l5%t54 @l5%t42 @l5%t59 @l5%t60 @l5%t58 @l5%t57 @l5%t62 @l5%t56 @l5%t64 @l5%t66 @l5%t68 @l5%t67  
  
@l5  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%x @l0%y @l0%rnd @l0%n @l0%fx @l0%fy @l0%zx @l0%zy @l0%nx @l0%ny @l0%W @l0%H @l0%col @l0%t7 @l0%t9 @l0%t8 @l0%t6 @l0%t5 @l0%t12 @l0%t4 @l0%t17 @l0%t19 @l0%t18 @l0%t16 @l0%t15 @l0%t22 @l0%t14 @l0%t24 @l0%t26 @l1%t30 @l1%t29 @l2%t36 @l2%t37 @l2%t35 @l2%t39 @l2%t40 @l2%t38 @l2%t34 @l2%t32 @l5%t46 @l5%t47 @l5%t45 @l5%t44 @l5%t51 @l5%t52 @l5%t50 @l5%t49 @l5%t43 @l5%t54 @l5%t42 @l5%t59 @l5%t60 @l5%t58 @l5%t57 @l5%t62 @l5%t56 @l5%t64 @l5%t66 @l5%t68 @l5%t67  
  
@l3  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%x @l0%y @l0%rnd @l0%n @l0%fx @l0%fy @l0%zx @l0%zy @l0%nx @l0%ny @l0%W @l0%H @l0%col @l0%t7 @l0%t9 @l0%t8 @l0%t6 @l0%t5 @l0%t12 @l0%t4 @l0%t17 @l0%t19 @l0%t18 @l0%t16 @l0%t15 @l0%t22 @l0%t14 @l0%t24 @l0%t26 @l1%t30 @l1%t29 @l2%t36 @l2%t37 @l2%t35 @l2%t39 @l2%t40 @l2%t38 @l2%t34 @l2%t32 @l5%t46 @l5%t47 @l5%t45 @l5%t44 @l5%t51 @l5%t52 @l5%t50 @l5%t49 @l5%t43 @l5%t54 @l5%t42 @l5%t59 @l5%t60 @l5%t58 @l5%t57 @l5%t62 @l5%t56 @l5%t64 @l5%t66 @l5%t68 @l5%t67  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=12, stime=0, ptime=12, rtime=13, maxvsz=21655552, maxrss=3571712, nvcsw=1, nivcsw=4 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #4 =======**  
--- Input: size 2101 ---  
export function w $main() {  
@l0  
 %c =l alloc4 4  
 %n =l alloc4 4  
 %x =l alloc4 4  
 %y =l alloc4 4  
 %e =l alloc8 8  
 %ie =l alloc8 8  
 %col =l alloc8 8  
 %W =l alloc4 4  
 %H =l alloc4 4  
 %rnd =l alloc4 4  
 %win =l alloc4 4  
 storew 800, %W  
 storew 800, %H  
 %t4 =w call $SDL\_Init(w 32, ...)  
 %t11 =w loadw %W  
 %t12 =w loadw %H  
 %t7 =w call $SDL\_CreateWindow(l $glo1, w 0, w 0, w %t11, w %t12, w 0, ...)  
 storew %t7, %win  
 %t16 =w loadw %win  
 %t17 =w sub 0, 1  
 %t15 =w call $SDL\_CreateRenderer(w %t16, w %t17, w 0, ...)  
 storew %t15, %rnd  
 %t22 =l loadl %e  
 storel %t22, %ie  
 storew 20, %c  
 storew 0, %n  
@l1  
 %t28 =w loadw %n  
 %t27 =w csltw %t28, 200  
 jnz %t27, @l2, @l3  
@l2  
 %t31 =w loadw %c  
 %t33 =l loadl %col  
 %t34 =w loadw %n  
 %t35 =l extsw %t34  
 %t36 =l mul 4, %t35  
 %t32 =l add %t33, %t36  
 storew %t31, %t32  
 %t39 =w loadw %c  
 %t43 =w loadw %c  
 %t41 =w sub 255, %t43  
 %t40 =w div %t41, 8  
 %t38 =w add %t39, %t40  
 storew %t38, %c  
 %t46 =w loadw %n  
 %t45 =w add %t46, 1  
 storew %t45, %n  
 jmp @l1  
@l3  
 %t50 =l loadl %col  
 %t51 =w loadw %n  
 %t52 =l extsw %t51  
 %t53 =l mul 4, %t52  
 %t49 =l add %t50, %t53  
 storew 30, %t49  
 %t55 =w loadw %rnd  
 %t54 =w call $SDL\_RenderClear(w %t55, ...)  
 storew 0, %x  
@l4  
 %t59 =w loadw %x  
 %t60 =w loadw %W  
 %t58 =w csltw %t59, %t60  
 jnz %t58, @l5, @l6  
@l5  
 storew 0, %y  
@l7  
 %t64 =w loadw %y  
 %t65 =w loadw %H  
 %t63 =w csltw %t64, %t65  
 jnz %t63, @l8, @l9  
@l8  
 %t67 =w loadw %x  
 %t68 =w loadw %y  
 %t66 =w call $plot(w %t67, w %t68, ...)  
 %t70 =w loadw %y  
 %t69 =w add %t70, 1  
 storew %t69, %y  
 jmp @l7  
@l9  
 %t72 =w loadw %x  
 %t71 =w add %t72, 1  
 storew %t71, %x  
 jmp @l4  
@l6  
 %t74 =w loadw %rnd  
 %t73 =w call $SDL\_RenderPresent(w %t74, ...)  
@l10  
 jnz 1, @l11, @l12  
@l11  
 %t77 =l loadl %e  
 %t76 =w call $SDL\_PollEvent(l %t77, ...)  
 jnz %t76, @l13, @l14  
@l13  
 %t81 =l loadl %ie  
 %t80 =l add %t81, 0  
 %t79 =w loadw %t80  
 %t78 =w ceqw %t79, 769  
 jnz %t78, @l16, @l17  
@l16  
 jmp @l12  
@l17  
@l14  
 jmp @l10  
@l12  
 %t85 =w loadw %rnd  
 %t84 =w call $SDL\_DestroyRenderer(w %t85, ...)  
 %t87 =w loadw %win  
 %t86 =w call $SDL\_DestroyWindow(w %t87, ...)  
 %t88 =w call $SDL\_Quit(...)  
 ret 0  
}  
  
--- Output: size 6895 ---  
@l0  
 rd\_in =   
@l1  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l1%t28 @l1%t27   
@l2  
 rd\_in = @l1%t28 @l1%t27 @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45   
@l3  
 rd\_in = @l1%t28 @l1%t27 @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45   
@l4  
 rd\_in = @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l1%t28 @l1%t27 @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l9%t72 @l9%t71 @l7%t64 @l7%t65 @l7%t63 @l4%t59 @l4%t60 @l4%t58 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69   
@l5  
 rd\_in = @l4%t59 @l4%t60 @l4%t58 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l1%t28 @l1%t27 @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l9%t72 @l9%t71 @l7%t64 @l7%t65 @l7%t63 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69   
@l7  
 rd\_in = @l4%t59 @l4%t60 @l4%t58 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l1%t28 @l1%t27 @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l9%t72 @l9%t71 @l7%t64 @l7%t65 @l7%t63 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69   
@l8  
 rd\_in = @l7%t64 @l7%t65 @l7%t63 @l4%t59 @l4%t60 @l4%t58 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l1%t28 @l1%t27 @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l9%t72 @l9%t71 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69   
@l9  
 rd\_in = @l7%t64 @l7%t65 @l7%t63 @l4%t59 @l4%t60 @l4%t58 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l1%t28 @l1%t27 @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l9%t72 @l9%t71 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69   
@l6  
 rd\_in = @l4%t59 @l4%t60 @l4%t58 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l1%t28 @l1%t27 @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l9%t72 @l9%t71 @l7%t64 @l7%t65 @l7%t63 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69   
@l10  
 rd\_in = @l6%t74 @l6%t73 @l4%t59 @l4%t60 @l4%t58 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l1%t28 @l1%t27 @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l9%t72 @l9%t71 @l7%t64 @l7%t65 @l7%t63 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69 @l11%t77 @l11%t76 @l13%t81 @l13%t80 @l13%t79 @l13%t78   
@l11  
 rd\_in = @l6%t74 @l6%t73 @l4%t59 @l4%t60 @l4%t58 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l1%t28 @l1%t27 @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l9%t72 @l9%t71 @l7%t64 @l7%t65 @l7%t63 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69 @l11%t77 @l11%t76 @l13%t81 @l13%t80 @l13%t79 @l13%t78   
@l13  
 rd\_in = @l11%t77 @l11%t76 @l6%t74 @l6%t73 @l4%t59 @l4%t60 @l4%t58 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l1%t28 @l1%t27 @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l9%t72 @l9%t71 @l7%t64 @l7%t65 @l7%t63 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69 @l13%t81 @l13%t80 @l13%t79 @l13%t78   
@l16  
 rd\_in = @l13%t81 @l13%t80 @l13%t79 @l13%t78 @l11%t77 @l11%t76 @l6%t74 @l6%t73 @l4%t59 @l4%t60 @l4%t58 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l1%t28 @l1%t27 @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l9%t72 @l9%t71 @l7%t64 @l7%t65 @l7%t63 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69   
@l17  
 rd\_in = @l13%t81 @l13%t80 @l13%t79 @l13%t78 @l11%t77 @l11%t76 @l6%t74 @l6%t73 @l4%t59 @l4%t60 @l4%t58 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l1%t28 @l1%t27 @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l9%t72 @l9%t71 @l7%t64 @l7%t65 @l7%t63 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69   
@l14  
 rd\_in = @l11%t77 @l11%t76 @l6%t74 @l6%t73 @l4%t59 @l4%t60 @l4%t58 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l1%t28 @l1%t27 @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l9%t72 @l9%t71 @l7%t64 @l7%t65 @l7%t63 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69 @l13%t81 @l13%t80 @l13%t79 @l13%t78   
@l12  
 rd\_in = @l6%t74 @l6%t73 @l4%t59 @l4%t60 @l4%t58 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l1%t28 @l1%t27 @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l9%t72 @l9%t71 @l7%t64 @l7%t65 @l7%t63 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69 @l11%t77 @l11%t76 @l13%t81 @l13%t80 @l13%t79 @l13%t78   
  
--- Correct: size 6895 ---  
@l0  
 rd\_in =  
  
@l1  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l1%t28 @l1%t27 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45  
  
@l2  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l1%t28 @l1%t27 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45  
  
@l3  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l1%t28 @l1%t27 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45  
  
@l4  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l1%t28 @l1%t27 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l4%t59 @l4%t60 @l4%t58 @l7%t64 @l7%t65 @l7%t63 @l9%t72 @l9%t71 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69  
  
@l5  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l1%t28 @l1%t27 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l4%t59 @l4%t60 @l4%t58 @l7%t64 @l7%t65 @l7%t63 @l9%t72 @l9%t71 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69  
  
@l7  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l1%t28 @l1%t27 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l4%t59 @l4%t60 @l4%t58 @l7%t64 @l7%t65 @l7%t63 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69 @l9%t72 @l9%t71 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45  
  
@l8  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l1%t28 @l1%t27 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l4%t59 @l4%t60 @l4%t58 @l7%t64 @l7%t65 @l7%t63 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69 @l9%t72 @l9%t71 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45  
  
@l9  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l1%t28 @l1%t27 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l4%t59 @l4%t60 @l4%t58 @l7%t64 @l7%t65 @l7%t63 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69 @l9%t72 @l9%t71 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45  
  
@l6  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l1%t28 @l1%t27 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l4%t59 @l4%t60 @l4%t58 @l7%t64 @l7%t65 @l7%t63 @l9%t72 @l9%t71 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69  
  
@l10  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l1%t28 @l1%t27 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l4%t59 @l4%t60 @l4%t58 @l6%t74 @l6%t73 @l11%t77 @l11%t76 @l13%t81 @l13%t80 @l13%t79 @l13%t78 @l7%t64 @l7%t65 @l7%t63 @l9%t72 @l9%t71 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69  
  
@l11  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l1%t28 @l1%t27 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l4%t59 @l4%t60 @l4%t58 @l6%t74 @l6%t73 @l11%t77 @l11%t76 @l13%t81 @l13%t80 @l13%t79 @l13%t78 @l7%t64 @l7%t65 @l7%t63 @l9%t72 @l9%t71 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69  
  
@l13  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l1%t28 @l1%t27 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l4%t59 @l4%t60 @l4%t58 @l6%t74 @l6%t73 @l11%t77 @l11%t76 @l13%t81 @l13%t80 @l13%t79 @l13%t78 @l7%t64 @l7%t65 @l7%t63 @l9%t72 @l9%t71 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69  
  
@l16  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l1%t28 @l1%t27 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l4%t59 @l4%t60 @l4%t58 @l6%t74 @l6%t73 @l11%t77 @l11%t76 @l13%t81 @l13%t80 @l13%t79 @l13%t78 @l7%t64 @l7%t65 @l7%t63 @l9%t72 @l9%t71 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69  
  
@l17  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l1%t28 @l1%t27 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l4%t59 @l4%t60 @l4%t58 @l6%t74 @l6%t73 @l11%t77 @l11%t76 @l13%t81 @l13%t80 @l13%t79 @l13%t78 @l7%t64 @l7%t65 @l7%t63 @l9%t72 @l9%t71 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69  
  
@l14  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l1%t28 @l1%t27 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l4%t59 @l4%t60 @l4%t58 @l6%t74 @l6%t73 @l11%t77 @l11%t76 @l13%t81 @l13%t80 @l13%t79 @l13%t78 @l7%t64 @l7%t65 @l7%t63 @l9%t72 @l9%t71 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69  
  
@l12  
 rd\_in = @l0%c @l0%n @l0%x @l0%y @l0%e @l0%ie @l0%col @l0%W @l0%H @l0%rnd @l0%win @l0%t4 @l0%t11 @l0%t12 @l0%t7 @l0%t16 @l0%t17 @l0%t15 @l0%t22 @l1%t28 @l1%t27 @l3%t50 @l3%t51 @l3%t52 @l3%t53 @l3%t49 @l3%t55 @l3%t54 @l4%t59 @l4%t60 @l4%t58 @l6%t74 @l6%t73 @l11%t77 @l11%t76 @l13%t81 @l13%t80 @l13%t79 @l13%t78 @l7%t64 @l7%t65 @l7%t63 @l9%t72 @l9%t71 @l2%t31 @l2%t33 @l2%t34 @l2%t35 @l2%t36 @l2%t32 @l2%t39 @l2%t43 @l2%t41 @l2%t40 @l2%t38 @l2%t46 @l2%t45 @l8%t67 @l8%t68 @l8%t66 @l8%t70 @l8%t69  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=48, stime=0, ptime=48, rtime=52, maxvsz=21655552, maxrss=3690496, nvcsw=1, nivcsw=10 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #5 =======**  
--- Input: size 1002 ---  
export function w $main() {  
@l0  
 %n =l alloc4 4  
 %t =l alloc4 4  
 %c =l alloc4 4  
 %p =l alloc4 4  
 storew 0, %c  
 storew 2, %n  
@l1  
 %t5 =w loadw %n  
 %t4 =w csltw %t5, 5000  
 jnz %t4, @l2, @l3  
@l2  
 storew 2, %t  
 storew 1, %p  
@l4  
 %t13 =w loadw %t  
 %t14 =w loadw %t  
 %t12 =w mul %t13, %t14  
 %t15 =w loadw %n  
 %t11 =w cslew %t12, %t15  
 jnz %t11, @l5, @l6  
@l5  
 %t18 =w loadw %n  
 %t19 =w loadw %t  
 %t17 =w rem %t18, %t19  
 %t16 =w ceqw %t17, 0  
 jnz %t16, @l7, @l8  
@l7  
 storew 0, %p  
@l8  
 %t24 =w loadw %t  
 %t23 =w add %t24, 1  
 storew %t23, %t  
 jmp @l4  
@l6  
 %t25 =w loadw %p  
 jnz %t25, @l10, @l11  
@l10  
 %t26 =w loadw %c  
 jnz %t26, @l16, @l14  
@l16  
 %t29 =w loadw %c  
 %t28 =w rem %t29, 10  
 %t27 =w ceqw %t28, 0  
 jnz %t27, @l13, @l14  
@l13  
 %t32 =w call $printf(l $glo1, ...)  
@l14  
 %t36 =w loadw %n  
 %t34 =w call $printf(l $glo2, w %t36, ...)  
 %t38 =w loadw %c  
 %t37 =w add %t38, 1  
 storew %t37, %c  
@l11  
 %t40 =w loadw %n  
 %t39 =w add %t40, 1  
 storew %t39, %n  
 jmp @l1  
@l3  
 %t41 =w call $printf(l $glo3, ...)  
 ret 0  
}  
  
--- Output: size 3230 ---  
@l0  
 rd\_in =   
@l1  
 rd\_in = @l0%n @l0%t @l0%c @l0%p @l11%t40 @l11%t39 @l6%t25 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l1%t5 @l1%t4 @l8%t24 @l8%t23 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32   
@l2  
 rd\_in = @l1%t5 @l1%t4 @l0%n @l0%t @l0%c @l0%p @l11%t40 @l11%t39 @l6%t25 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l8%t24 @l8%t23 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32   
@l4  
 rd\_in = @l1%t5 @l1%t4 @l0%n @l0%t @l0%c @l0%p @l11%t40 @l11%t39 @l6%t25 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l8%t24 @l8%t23 @l5%t18 @l5%t19 @l5%t17 @l5%t16   
@l5  
 rd\_in = @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l1%t5 @l1%t4 @l0%n @l0%t @l0%c @l0%p @l11%t40 @l11%t39 @l6%t25 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l8%t24 @l8%t23 @l5%t18 @l5%t19 @l5%t17 @l5%t16   
@l7  
 rd\_in = @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l1%t5 @l1%t4 @l0%n @l0%t @l0%c @l0%p @l11%t40 @l11%t39 @l6%t25 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l8%t24 @l8%t23   
@l8  
 rd\_in = @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l1%t5 @l1%t4 @l0%n @l0%t @l0%c @l0%p @l11%t40 @l11%t39 @l6%t25 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l8%t24 @l8%t23   
@l6  
 rd\_in = @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l1%t5 @l1%t4 @l0%n @l0%t @l0%c @l0%p @l11%t40 @l11%t39 @l6%t25 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l8%t24 @l8%t23 @l5%t18 @l5%t19 @l5%t17 @l5%t16   
@l10  
 rd\_in = @l6%t25 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l1%t5 @l1%t4 @l0%n @l0%t @l0%c @l0%p @l11%t40 @l11%t39 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l8%t24 @l8%t23 @l5%t18 @l5%t19 @l5%t17 @l5%t16   
@l16  
 rd\_in = @l10%t26 @l6%t25 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l1%t5 @l1%t4 @l0%n @l0%t @l0%c @l0%p @l11%t40 @l11%t39 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l8%t24 @l8%t23 @l5%t18 @l5%t19 @l5%t17 @l5%t16   
@l13  
 rd\_in = @l16%t29 @l16%t28 @l16%t27 @l10%t26 @l6%t25 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l1%t5 @l1%t4 @l0%n @l0%t @l0%c @l0%p @l11%t40 @l11%t39 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l13%t32 @l8%t24 @l8%t23 @l5%t18 @l5%t19 @l5%t17 @l5%t16   
@l14  
 rd\_in = @l10%t26 @l6%t25 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l1%t5 @l1%t4 @l0%n @l0%t @l0%c @l0%p @l11%t40 @l11%t39 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l8%t24 @l8%t23 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l16%t29 @l16%t28 @l16%t27 @l13%t32   
@l11  
 rd\_in = @l6%t25 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l1%t5 @l1%t4 @l0%n @l0%t @l0%c @l0%p @l11%t40 @l11%t39 @l8%t24 @l8%t23 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32   
@l3  
 rd\_in = @l1%t5 @l1%t4 @l0%n @l0%t @l0%c @l0%p @l11%t40 @l11%t39 @l6%t25 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l8%t24 @l8%t23 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32   
  
--- Correct: size 3230 ---  
@l0  
 rd\_in =  
  
@l1  
 rd\_in = @l0%n @l0%t @l0%c @l0%p @l1%t5 @l1%t4 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l6%t25 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l11%t40 @l11%t39 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l8%t24 @l8%t23  
  
@l2  
 rd\_in = @l0%n @l0%t @l0%c @l0%p @l1%t5 @l1%t4 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l6%t25 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l11%t40 @l11%t39 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l8%t24 @l8%t23  
  
@l4  
 rd\_in = @l0%n @l0%t @l0%c @l0%p @l1%t5 @l1%t4 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l8%t24 @l8%t23 @l6%t25 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l11%t40 @l11%t39  
  
@l5  
 rd\_in = @l0%n @l0%t @l0%c @l0%p @l1%t5 @l1%t4 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l8%t24 @l8%t23 @l6%t25 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l11%t40 @l11%t39  
  
@l7  
 rd\_in = @l0%n @l0%t @l0%c @l0%p @l1%t5 @l1%t4 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l8%t24 @l8%t23 @l6%t25 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l11%t40 @l11%t39  
  
@l8  
 rd\_in = @l0%n @l0%t @l0%c @l0%p @l1%t5 @l1%t4 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l8%t24 @l8%t23 @l6%t25 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l11%t40 @l11%t39  
  
@l6  
 rd\_in = @l0%n @l0%t @l0%c @l0%p @l1%t5 @l1%t4 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l8%t24 @l8%t23 @l6%t25 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l11%t40 @l11%t39  
  
@l10  
 rd\_in = @l0%n @l0%t @l0%c @l0%p @l1%t5 @l1%t4 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l6%t25 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l8%t24 @l8%t23 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l11%t40 @l11%t39  
  
@l16  
 rd\_in = @l0%n @l0%t @l0%c @l0%p @l1%t5 @l1%t4 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l6%t25 @l10%t26 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l8%t24 @l8%t23 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l11%t40 @l11%t39  
  
@l13  
 rd\_in = @l0%n @l0%t @l0%c @l0%p @l1%t5 @l1%t4 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l6%t25 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l8%t24 @l8%t23 @l13%t32 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l11%t40 @l11%t39  
  
@l14  
 rd\_in = @l0%n @l0%t @l0%c @l0%p @l1%t5 @l1%t4 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l6%t25 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l8%t24 @l8%t23 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l11%t40 @l11%t39  
  
@l11  
 rd\_in = @l0%n @l0%t @l0%c @l0%p @l1%t5 @l1%t4 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l6%t25 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l8%t24 @l8%t23 @l11%t40 @l11%t39  
  
@l3  
 rd\_in = @l0%n @l0%t @l0%c @l0%p @l1%t5 @l1%t4 @l4%t13 @l4%t14 @l4%t12 @l4%t15 @l4%t11 @l6%t25 @l10%t26 @l16%t29 @l16%t28 @l16%t27 @l13%t32 @l14%t36 @l14%t34 @l14%t38 @l14%t37 @l11%t40 @l11%t39 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l8%t24 @l8%t23  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=12, stime=0, ptime=12, rtime=15, maxvsz=21655552, maxrss=3563520, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #6 =======**  
--- Input: size 897 ---  
export function w $print(w %t0, l %t1) {  
@l0  
 %Q =l alloc4 4  
 storew %t0, %Q  
 %t =l alloc8 8  
 storel %t1, %t  
 %x =l alloc4 4  
 %y =l alloc4 4  
 storew 0, %y  
@l1  
 %t5 =w loadw %y  
 %t6 =w loadw %Q  
 %t4 =w csltw %t5, %t6  
 jnz %t4, @l2, @l3  
@l2  
 storew 0, %x  
@l4  
 %t10 =w loadw %x  
 %t11 =w loadw %Q  
 %t9 =w csltw %t10, %t11  
 jnz %t9, @l5, @l6  
@l5  
 %t16 =l loadl %t  
 %t17 =w loadw %x  
 %t18 =l extsw %t17  
 %t19 =l mul 8, %t18  
 %t15 =l add %t16, %t19  
 %t14 =l loadl %t15  
 %t20 =w loadw %y  
 %t21 =l extsw %t20  
 %t22 =l mul 4, %t21  
 %t13 =l add %t14, %t22  
 %t12 =w loadw %t13  
 jnz %t12, @l7, @l8  
@l7  
 %t23 =w call $printf(l $glo1, ...)  
 jmp @l9  
@l8  
 %t25 =w call $printf(l $glo2, ...)  
@l9  
 %t28 =w loadw %x  
 %t27 =w add %t28, 1  
 storew %t27, %x  
 jmp @l4  
@l6  
 %t29 =w call $printf(l $glo3, ...)  
 %t32 =w loadw %y  
 %t31 =w add %t32, 1  
 storew %t31, %y  
 jmp @l1  
@l3  
 %t33 =w call $printf(l $glo4, ...)  
 ret 0  
}  
  
--- Output: size 2174 ---  
@l0  
 rd\_in =   
@l1  
 rd\_in = @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l6%t29 @l6%t32 @l6%t31 @l4%t10 @l4%t11 @l4%t9 @l1%t5 @l1%t6 @l1%t4 @l9%t28 @l9%t27 @l7%t23 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l8%t25   
@l2  
 rd\_in = @l1%t5 @l1%t6 @l1%t4 @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l6%t29 @l6%t32 @l6%t31 @l4%t10 @l4%t11 @l4%t9 @l9%t28 @l9%t27 @l7%t23 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l8%t25   
@l4  
 rd\_in = @l1%t5 @l1%t6 @l1%t4 @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l6%t29 @l6%t32 @l6%t31 @l4%t10 @l4%t11 @l4%t9 @l9%t28 @l9%t27 @l7%t23 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l8%t25   
@l5  
 rd\_in = @l4%t10 @l4%t11 @l4%t9 @l1%t5 @l1%t6 @l1%t4 @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l6%t29 @l6%t32 @l6%t31 @l9%t28 @l9%t27 @l7%t23 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l8%t25   
@l7  
 rd\_in = @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l4%t10 @l4%t11 @l4%t9 @l1%t5 @l1%t6 @l1%t4 @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l6%t29 @l6%t32 @l6%t31 @l9%t28 @l9%t27 @l7%t23 @l8%t25   
@l8  
 rd\_in = @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l4%t10 @l4%t11 @l4%t9 @l1%t5 @l1%t6 @l1%t4 @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l6%t29 @l6%t32 @l6%t31 @l9%t28 @l9%t27 @l7%t23 @l8%t25   
@l9  
 rd\_in = @l7%t23 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l4%t10 @l4%t11 @l4%t9 @l1%t5 @l1%t6 @l1%t4 @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l6%t29 @l6%t32 @l6%t31 @l9%t28 @l9%t27 @l8%t25   
@l6  
 rd\_in = @l4%t10 @l4%t11 @l4%t9 @l1%t5 @l1%t6 @l1%t4 @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l6%t29 @l6%t32 @l6%t31 @l9%t28 @l9%t27 @l7%t23 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l8%t25   
@l3  
 rd\_in = @l1%t5 @l1%t6 @l1%t4 @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l6%t29 @l6%t32 @l6%t31 @l4%t10 @l4%t11 @l4%t9 @l9%t28 @l9%t27 @l7%t23 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l8%t25   
  
--- Correct: size 2174 ---  
@l0  
 rd\_in =  
  
@l1  
 rd\_in = @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l1%t5 @l1%t6 @l1%t4 @l4%t10 @l4%t11 @l4%t9 @l6%t29 @l6%t32 @l6%t31 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l7%t23 @l8%t25 @l9%t28 @l9%t27  
  
@l2  
 rd\_in = @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l1%t5 @l1%t6 @l1%t4 @l4%t10 @l4%t11 @l4%t9 @l6%t29 @l6%t32 @l6%t31 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l7%t23 @l8%t25 @l9%t28 @l9%t27  
  
@l4  
 rd\_in = @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l1%t5 @l1%t6 @l1%t4 @l4%t10 @l4%t11 @l4%t9 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l7%t23 @l8%t25 @l9%t28 @l9%t27 @l6%t29 @l6%t32 @l6%t31  
  
@l5  
 rd\_in = @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l1%t5 @l1%t6 @l1%t4 @l4%t10 @l4%t11 @l4%t9 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l7%t23 @l8%t25 @l9%t28 @l9%t27 @l6%t29 @l6%t32 @l6%t31  
  
@l7  
 rd\_in = @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l1%t5 @l1%t6 @l1%t4 @l4%t10 @l4%t11 @l4%t9 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l7%t23 @l8%t25 @l9%t28 @l9%t27 @l6%t29 @l6%t32 @l6%t31  
  
@l8  
 rd\_in = @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l1%t5 @l1%t6 @l1%t4 @l4%t10 @l4%t11 @l4%t9 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l7%t23 @l8%t25 @l9%t28 @l9%t27 @l6%t29 @l6%t32 @l6%t31  
  
@l9  
 rd\_in = @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l1%t5 @l1%t6 @l1%t4 @l4%t10 @l4%t11 @l4%t9 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l7%t23 @l8%t25 @l9%t28 @l9%t27 @l6%t29 @l6%t32 @l6%t31  
  
@l6  
 rd\_in = @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l1%t5 @l1%t6 @l1%t4 @l4%t10 @l4%t11 @l4%t9 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l7%t23 @l8%t25 @l9%t28 @l9%t27 @l6%t29 @l6%t32 @l6%t31  
  
@l3  
 rd\_in = @l0%t0 @l0%t1 @l0%Q @l0%t @l0%x @l0%y @l1%t5 @l1%t6 @l1%t4 @l4%t10 @l4%t11 @l4%t9 @l6%t29 @l6%t32 @l6%t31 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l7%t23 @l8%t25 @l9%t28 @l9%t27  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=12, stime=0, ptime=12, rtime=12, maxvsz=21655552, maxrss=3633152, nvcsw=1, nivcsw=3 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #7 =======**  
--- Input: size 3533 ---  
export function w $chk(w %t0, w %t1, l %t2, w %t3) {  
@l0  
 %x =l alloc4 4  
 storew %t0, %x  
 %y =l alloc4 4  
 storew %t1, %y  
 %t =l alloc8 8  
 storel %t2, %t  
 %Q =l alloc4 4  
 storew %t3, %Q  
 %i =l alloc4 4  
 %r =l alloc4 4  
 storew 0, %i  
 storew 0, %r  
@l1  
 %t8 =w loadw %i  
 %t9 =w loadw %Q  
 %t7 =w csltw %t8, %t9  
 jnz %t7, @l2, @l3  
@l2  
 %t12 =w loadw %r  
 %t17 =l loadl %t  
 %t18 =w loadw %x  
 %t19 =l extsw %t18  
 %t20 =l mul 8, %t19  
 %t16 =l add %t17, %t20  
 %t15 =l loadl %t16  
 %t21 =w loadw %i  
 %t22 =l extsw %t21  
 %t23 =l mul 4, %t22  
 %t14 =l add %t15, %t23  
 %t13 =w loadw %t14  
 %t11 =w add %t12, %t13  
 storew %t11, %r  
 %t26 =w loadw %r  
 %t31 =l loadl %t  
 %t32 =w loadw %i  
 %t33 =l extsw %t32  
 %t34 =l mul 8, %t33  
 %t30 =l add %t31, %t34  
 %t29 =l loadl %t30  
 %t35 =w loadw %y  
 %t36 =l extsw %t35  
 %t37 =l mul 4, %t36  
 %t28 =l add %t29, %t37  
 %t27 =w loadw %t28  
 %t25 =w add %t26, %t27  
 storew %t25, %r  
 %t41 =w loadw %x  
 %t42 =w loadw %i  
 %t40 =w add %t41, %t42  
 %t43 =w loadw %Q  
 %t39 =w csltw %t40, %t43  
 %t46 =w loadw %y  
 %t47 =w loadw %i  
 %t45 =w add %t46, %t47  
 %t48 =w loadw %Q  
 %t44 =w csltw %t45, %t48  
 %t38 =w and %t39, %t44  
 jnz %t38, @l4, @l5  
@l4  
 %t51 =w loadw %r  
 %t56 =l loadl %t  
 %t58 =w loadw %x  
 %t59 =w loadw %i  
 %t57 =w add %t58, %t59  
 %t60 =l extsw %t57  
 %t61 =l mul 8, %t60  
 %t55 =l add %t56, %t61  
 %t54 =l loadl %t55  
 %t63 =w loadw %y  
 %t64 =w loadw %i  
 %t62 =w add %t63, %t64  
 %t65 =l extsw %t62  
 %t66 =l mul 4, %t65  
 %t53 =l add %t54, %t66  
 %t52 =w loadw %t53  
 %t50 =w add %t51, %t52  
 storew %t50, %r  
@l5  
 %t70 =w loadw %x  
 %t71 =w loadw %i  
 %t69 =w add %t70, %t71  
 %t72 =w loadw %Q  
 %t68 =w csltw %t69, %t72  
 %t76 =w loadw %y  
 %t77 =w loadw %i  
 %t75 =w sub %t76, %t77  
 %t73 =w cslew 0, %t75  
 %t67 =w and %t68, %t73  
 jnz %t67, @l7, @l8  
@l7  
 %t80 =w loadw %r  
 %t85 =l loadl %t  
 %t87 =w loadw %x  
 %t88 =w loadw %i  
 %t86 =w add %t87, %t88  
 %t89 =l extsw %t86  
 %t90 =l mul 8, %t89  
 %t84 =l add %t85, %t90  
 %t83 =l loadl %t84  
 %t92 =w loadw %y  
 %t93 =w loadw %i  
 %t91 =w sub %t92, %t93  
 %t94 =l extsw %t91  
 %t95 =l mul 4, %t94  
 %t82 =l add %t83, %t95  
 %t81 =w loadw %t82  
 %t79 =w add %t80, %t81  
 storew %t79, %r  
@l8  
 %t100 =w loadw %x  
 %t101 =w loadw %i  
 %t99 =w sub %t100, %t101  
 %t97 =w cslew 0, %t99  
 %t104 =w loadw %y  
 %t105 =w loadw %i  
 %t103 =w add %t104, %t105  
 %t106 =w loadw %Q  
 %t102 =w csltw %t103, %t106  
 %t96 =w and %t97, %t102  
 jnz %t96, @l10, @l11  
@l10  
 %t109 =w loadw %r  
 %t114 =l loadl %t  
 %t116 =w loadw %x  
 %t117 =w loadw %i  
 %t115 =w sub %t116, %t117  
 %t118 =l extsw %t115  
 %t119 =l mul 8, %t118  
 %t113 =l add %t114, %t119  
 %t112 =l loadl %t113  
 %t121 =w loadw %y  
 %t122 =w loadw %i  
 %t120 =w add %t121, %t122  
 %t123 =l extsw %t120  
 %t124 =l mul 4, %t123  
 %t111 =l add %t112, %t124  
 %t110 =w loadw %t111  
 %t108 =w add %t109, %t110  
 storew %t108, %r  
@l11  
 %t129 =w loadw %x  
 %t130 =w loadw %i  
 %t128 =w sub %t129, %t130  
 %t126 =w cslew 0, %t128  
 %t134 =w loadw %y  
 %t135 =w loadw %i  
 %t133 =w sub %t134, %t135  
 %t131 =w cslew 0, %t133  
 %t125 =w and %t126, %t131  
 jnz %t125, @l13, @l14  
@l13  
 %t138 =w loadw %r  
 %t143 =l loadl %t  
 %t145 =w loadw %x  
 %t146 =w loadw %i  
 %t144 =w sub %t145, %t146  
 %t147 =l extsw %t144  
 %t148 =l mul 8, %t147  
 %t142 =l add %t143, %t148  
 %t141 =l loadl %t142  
 %t150 =w loadw %y  
 %t151 =w loadw %i  
 %t149 =w sub %t150, %t151  
 %t152 =l extsw %t149  
 %t153 =l mul 4, %t152  
 %t140 =l add %t141, %t153  
 %t139 =w loadw %t140  
 %t137 =w add %t138, %t139  
 storew %t137, %r  
@l14  
 %t155 =w loadw %i  
 %t154 =w add %t155, 1  
 storew %t154, %i  
 jmp @l1  
@l3  
 %t156 =w loadw %r  
 ret %t156  
}  
  
  
--- Output: size 14142 ---  
@l0  
 rd\_in =   
@l1  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l14%t155 @l14%t154 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l1%t8 @l1%t9 @l1%t7 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137   
@l2  
 rd\_in = @l1%t8 @l1%t9 @l1%t7 @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l14%t155 @l14%t154 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137   
@l4  
 rd\_in = @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l1%t8 @l1%t9 @l1%t7 @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l14%t155 @l14%t154 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137   
@l5  
 rd\_in = @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l1%t8 @l1%t9 @l1%t7 @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l14%t155 @l14%t154 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50   
@l7  
 rd\_in = @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l1%t8 @l1%t9 @l1%t7 @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l14%t155 @l14%t154 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50   
@l8  
 rd\_in = @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l1%t8 @l1%t9 @l1%t7 @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l14%t155 @l14%t154 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79   
@l10  
 rd\_in = @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l1%t8 @l1%t9 @l1%t7 @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l14%t155 @l14%t154 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79   
@l11  
 rd\_in = @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l1%t8 @l1%t9 @l1%t7 @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l14%t155 @l14%t154 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108   
@l13  
 rd\_in = @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l1%t8 @l1%t9 @l1%t7 @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l14%t155 @l14%t154 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108   
@l14  
 rd\_in = @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l1%t8 @l1%t9 @l1%t7 @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l14%t155 @l14%t154 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137   
@l3  
 rd\_in = @l1%t8 @l1%t9 @l1%t7 @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l14%t155 @l14%t154 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137   
  
--- Correct: size 14142 ---  
@l0  
 rd\_in =  
  
@l1  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l1%t8 @l1%t9 @l1%t7 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l14%t155 @l14%t154  
  
@l2  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l1%t8 @l1%t9 @l1%t7 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l14%t155 @l14%t154  
  
@l4  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l1%t8 @l1%t9 @l1%t7 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l14%t155 @l14%t154  
  
@l5  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l1%t8 @l1%t9 @l1%t7 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l14%t155 @l14%t154  
  
@l7  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l1%t8 @l1%t9 @l1%t7 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l14%t155 @l14%t154  
  
@l8  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l1%t8 @l1%t9 @l1%t7 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l14%t155 @l14%t154  
  
@l10  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l1%t8 @l1%t9 @l1%t7 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l14%t155 @l14%t154  
  
@l11  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l1%t8 @l1%t9 @l1%t7 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l14%t155 @l14%t154  
  
@l13  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l1%t8 @l1%t9 @l1%t7 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l14%t155 @l14%t154  
  
@l14  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l1%t8 @l1%t9 @l1%t7 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l14%t155 @l14%t154  
  
@l3  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%x @l0%y @l0%t @l0%Q @l0%i @l0%r @l1%t8 @l1%t9 @l1%t7 @l2%t12 @l2%t17 @l2%t18 @l2%t19 @l2%t20 @l2%t16 @l2%t15 @l2%t21 @l2%t22 @l2%t23 @l2%t14 @l2%t13 @l2%t11 @l2%t26 @l2%t31 @l2%t32 @l2%t33 @l2%t34 @l2%t30 @l2%t29 @l2%t35 @l2%t36 @l2%t37 @l2%t28 @l2%t27 @l2%t25 @l2%t41 @l2%t42 @l2%t40 @l2%t43 @l2%t39 @l2%t46 @l2%t47 @l2%t45 @l2%t48 @l2%t44 @l2%t38 @l4%t51 @l4%t56 @l4%t58 @l4%t59 @l4%t57 @l4%t60 @l4%t61 @l4%t55 @l4%t54 @l4%t63 @l4%t64 @l4%t62 @l4%t65 @l4%t66 @l4%t53 @l4%t52 @l4%t50 @l5%t70 @l5%t71 @l5%t69 @l5%t72 @l5%t68 @l5%t76 @l5%t77 @l5%t75 @l5%t73 @l5%t67 @l7%t80 @l7%t85 @l7%t87 @l7%t88 @l7%t86 @l7%t89 @l7%t90 @l7%t84 @l7%t83 @l7%t92 @l7%t93 @l7%t91 @l7%t94 @l7%t95 @l7%t82 @l7%t81 @l7%t79 @l8%t100 @l8%t101 @l8%t99 @l8%t97 @l8%t104 @l8%t105 @l8%t103 @l8%t106 @l8%t102 @l8%t96 @l10%t109 @l10%t114 @l10%t116 @l10%t117 @l10%t115 @l10%t118 @l10%t119 @l10%t113 @l10%t112 @l10%t121 @l10%t122 @l10%t120 @l10%t123 @l10%t124 @l10%t111 @l10%t110 @l10%t108 @l11%t129 @l11%t130 @l11%t128 @l11%t126 @l11%t134 @l11%t135 @l11%t133 @l11%t131 @l11%t125 @l13%t138 @l13%t143 @l13%t145 @l13%t146 @l13%t144 @l13%t147 @l13%t148 @l13%t142 @l13%t141 @l13%t150 @l13%t151 @l13%t149 @l13%t152 @l13%t153 @l13%t140 @l13%t139 @l13%t137 @l14%t155 @l14%t154  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=324, stime=8, ptime=332, rtime=344, maxvsz=35078144, maxrss=3960832, nvcsw=1, nivcsw=12 }  
checker: { utime=4, stime=0, ptime=4, rtime=5, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #8 =======**  
--- Input: size 1274 ---  
export function w $go(w %t0, w %t1, l %t2, w %t3) {  
@l0  
 %y =l alloc4 4  
 storew %t0, %y  
 %Q =l alloc4 4  
 storew %t1, %Q  
 %t =l alloc8 8  
 storel %t2, %t  
 %N =l alloc4 4  
 storew %t3, %N  
 %x =l alloc4 4  
 %t5 =w loadw %y  
 %t6 =w loadw %Q  
 %t4 =w ceqw %t5, %t6  
 jnz %t4, @l1, @l2  
@l1  
 %t7 =w call $print(...)  
 %t9 =w loadw %N  
 %t8 =w add %t9, 1  
 storew %t8, %N  
 ret 0  
@l2  
 storew 0, %x  
@l4  
 %t14 =w loadw %x  
 %t15 =w loadw %Q  
 %t13 =w csltw %t14, %t15  
 jnz %t13, @l5, @l6  
@l5  
 %t18 =w loadw %x  
 %t19 =w loadw %y  
 %t17 =w call $chk(w %t18, w %t19, ...)  
 %t16 =w ceqw %t17, 0  
 jnz %t16, @l7, @l8  
@l7  
 %t25 =l loadl %t  
 %t26 =w loadw %x  
 %t27 =l extsw %t26  
 %t28 =l mul 8, %t27  
 %t24 =l add %t25, %t28  
 %t23 =l loadl %t24  
 %t29 =w loadw %y  
 %t30 =l extsw %t29  
 %t31 =l mul 4, %t30  
 %t22 =l add %t23, %t31  
 %t32 =w loadw %t22  
 %t21 =w add %t32, 1  
 storew %t21, %t22  
 %t35 =w loadw %y  
 %t34 =w add %t35, 1  
 %t33 =w call $go(w %t34, ...)  
 %t41 =l loadl %t  
 %t42 =w loadw %x  
 %t43 =l extsw %t42  
 %t44 =l mul 8, %t43  
 %t40 =l add %t41, %t44  
 %t39 =l loadl %t40  
 %t45 =w loadw %y  
 %t46 =l extsw %t45  
 %t47 =l mul 4, %t46  
 %t38 =l add %t39, %t47  
 %t48 =w loadw %t38  
 %t37 =w sub %t48, 1  
 storew %t37, %t38  
@l8  
 %t50 =w loadw %x  
 %t49 =w add %t50, 1  
 storew %t49, %x  
 jmp @l4  
@l6  
 ret 0  
}  
  
  
--- Output: size 2105 ---  
@l0  
 rd\_in =   
@l1  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%y @l0%Q @l0%t @l0%N @l0%x @l0%t5 @l0%t6 @l0%t4   
@l2  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%y @l0%Q @l0%t @l0%N @l0%x @l0%t5 @l0%t6 @l0%t4   
@l4  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%y @l0%Q @l0%t @l0%N @l0%x @l0%t5 @l0%t6 @l0%t4 @l8%t50 @l8%t49 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l4%t14 @l4%t15 @l4%t13 @l7%t25 @l7%t26 @l7%t27 @l7%t28 @l7%t24 @l7%t23 @l7%t29 @l7%t30 @l7%t31 @l7%t22 @l7%t32 @l7%t21 @l7%t35 @l7%t34 @l7%t33 @l7%t41 @l7%t42 @l7%t43 @l7%t44 @l7%t40 @l7%t39 @l7%t45 @l7%t46 @l7%t47 @l7%t38 @l7%t48 @l7%t37   
@l5  
 rd\_in = @l4%t14 @l4%t15 @l4%t13 @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%y @l0%Q @l0%t @l0%N @l0%x @l0%t5 @l0%t6 @l0%t4 @l8%t50 @l8%t49 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l7%t25 @l7%t26 @l7%t27 @l7%t28 @l7%t24 @l7%t23 @l7%t29 @l7%t30 @l7%t31 @l7%t22 @l7%t32 @l7%t21 @l7%t35 @l7%t34 @l7%t33 @l7%t41 @l7%t42 @l7%t43 @l7%t44 @l7%t40 @l7%t39 @l7%t45 @l7%t46 @l7%t47 @l7%t38 @l7%t48 @l7%t37   
@l7  
 rd\_in = @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l4%t14 @l4%t15 @l4%t13 @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%y @l0%Q @l0%t @l0%N @l0%x @l0%t5 @l0%t6 @l0%t4 @l8%t50 @l8%t49 @l7%t25 @l7%t26 @l7%t27 @l7%t28 @l7%t24 @l7%t23 @l7%t29 @l7%t30 @l7%t31 @l7%t22 @l7%t32 @l7%t21 @l7%t35 @l7%t34 @l7%t33 @l7%t41 @l7%t42 @l7%t43 @l7%t44 @l7%t40 @l7%t39 @l7%t45 @l7%t46 @l7%t47 @l7%t38 @l7%t48 @l7%t37   
@l8  
 rd\_in = @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l4%t14 @l4%t15 @l4%t13 @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%y @l0%Q @l0%t @l0%N @l0%x @l0%t5 @l0%t6 @l0%t4 @l8%t50 @l8%t49 @l7%t25 @l7%t26 @l7%t27 @l7%t28 @l7%t24 @l7%t23 @l7%t29 @l7%t30 @l7%t31 @l7%t22 @l7%t32 @l7%t21 @l7%t35 @l7%t34 @l7%t33 @l7%t41 @l7%t42 @l7%t43 @l7%t44 @l7%t40 @l7%t39 @l7%t45 @l7%t46 @l7%t47 @l7%t38 @l7%t48 @l7%t37   
@l6  
 rd\_in = @l4%t14 @l4%t15 @l4%t13 @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%y @l0%Q @l0%t @l0%N @l0%x @l0%t5 @l0%t6 @l0%t4 @l8%t50 @l8%t49 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l7%t25 @l7%t26 @l7%t27 @l7%t28 @l7%t24 @l7%t23 @l7%t29 @l7%t30 @l7%t31 @l7%t22 @l7%t32 @l7%t21 @l7%t35 @l7%t34 @l7%t33 @l7%t41 @l7%t42 @l7%t43 @l7%t44 @l7%t40 @l7%t39 @l7%t45 @l7%t46 @l7%t47 @l7%t38 @l7%t48 @l7%t37   
  
--- Correct: size 2105 ---  
@l0  
 rd\_in =  
  
@l1  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%y @l0%Q @l0%t @l0%N @l0%x @l0%t5 @l0%t6 @l0%t4  
  
@l2  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%y @l0%Q @l0%t @l0%N @l0%x @l0%t5 @l0%t6 @l0%t4  
  
@l4  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%y @l0%Q @l0%t @l0%N @l0%x @l0%t5 @l0%t6 @l0%t4 @l4%t14 @l4%t15 @l4%t13 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l7%t25 @l7%t26 @l7%t27 @l7%t28 @l7%t24 @l7%t23 @l7%t29 @l7%t30 @l7%t31 @l7%t22 @l7%t32 @l7%t21 @l7%t35 @l7%t34 @l7%t33 @l7%t41 @l7%t42 @l7%t43 @l7%t44 @l7%t40 @l7%t39 @l7%t45 @l7%t46 @l7%t47 @l7%t38 @l7%t48 @l7%t37 @l8%t50 @l8%t49  
  
@l5  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%y @l0%Q @l0%t @l0%N @l0%x @l0%t5 @l0%t6 @l0%t4 @l4%t14 @l4%t15 @l4%t13 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l7%t25 @l7%t26 @l7%t27 @l7%t28 @l7%t24 @l7%t23 @l7%t29 @l7%t30 @l7%t31 @l7%t22 @l7%t32 @l7%t21 @l7%t35 @l7%t34 @l7%t33 @l7%t41 @l7%t42 @l7%t43 @l7%t44 @l7%t40 @l7%t39 @l7%t45 @l7%t46 @l7%t47 @l7%t38 @l7%t48 @l7%t37 @l8%t50 @l8%t49  
  
@l7  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%y @l0%Q @l0%t @l0%N @l0%x @l0%t5 @l0%t6 @l0%t4 @l4%t14 @l4%t15 @l4%t13 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l7%t25 @l7%t26 @l7%t27 @l7%t28 @l7%t24 @l7%t23 @l7%t29 @l7%t30 @l7%t31 @l7%t22 @l7%t32 @l7%t21 @l7%t35 @l7%t34 @l7%t33 @l7%t41 @l7%t42 @l7%t43 @l7%t44 @l7%t40 @l7%t39 @l7%t45 @l7%t46 @l7%t47 @l7%t38 @l7%t48 @l7%t37 @l8%t50 @l8%t49  
  
@l8  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%y @l0%Q @l0%t @l0%N @l0%x @l0%t5 @l0%t6 @l0%t4 @l4%t14 @l4%t15 @l4%t13 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l7%t25 @l7%t26 @l7%t27 @l7%t28 @l7%t24 @l7%t23 @l7%t29 @l7%t30 @l7%t31 @l7%t22 @l7%t32 @l7%t21 @l7%t35 @l7%t34 @l7%t33 @l7%t41 @l7%t42 @l7%t43 @l7%t44 @l7%t40 @l7%t39 @l7%t45 @l7%t46 @l7%t47 @l7%t38 @l7%t48 @l7%t37 @l8%t50 @l8%t49  
  
@l6  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%y @l0%Q @l0%t @l0%N @l0%x @l0%t5 @l0%t6 @l0%t4 @l4%t14 @l4%t15 @l4%t13 @l5%t18 @l5%t19 @l5%t17 @l5%t16 @l7%t25 @l7%t26 @l7%t27 @l7%t28 @l7%t24 @l7%t23 @l7%t29 @l7%t30 @l7%t31 @l7%t22 @l7%t32 @l7%t21 @l7%t35 @l7%t34 @l7%t33 @l7%t41 @l7%t42 @l7%t43 @l7%t44 @l7%t40 @l7%t39 @l7%t45 @l7%t46 @l7%t47 @l7%t38 @l7%t48 @l7%t37 @l8%t50 @l8%t49  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=20, stime=4, ptime=24, rtime=26, maxvsz=21655552, maxrss=3555328, nvcsw=1, nivcsw=3 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #9 =======**  
--- Input: size 843 ---  
export function w $main(w %t0, l %t1, w %t2, w %t3) {  
@l0  
 %ac =l alloc4 4  
 storew %t0, %ac  
 %av =l alloc8 8  
 storel %t1, %av  
 %Q =l alloc4 4  
 storew %t2, %Q  
 %N =l alloc4 4  
 storew %t3, %N  
 %i =l alloc4 4  
 %t =l alloc8 8  
 storew 8, %Q  
 %t8 =w loadw %ac  
 %t6 =w cslew 2, %t8  
 jnz %t6, @l1, @l2  
@l1  
 %t13 =l loadl %av  
 %t12 =l add %t13, 8  
 %t11 =l loadl %t12  
 %t10 =w call $atoi(l %t11, ...)  
 storew %t10, %Q  
@l2  
 storew 0, %i  
@l4  
 %t18 =w loadw %i  
 %t19 =w loadw %Q  
 %t17 =w csltw %t18, %t19  
 jnz %t17, @l5, @l6  
@l5  
 %t22 =w loadw %Q  
 %t21 =w mul %t22, 4  
 %t25 =l loadl %t  
 %t26 =w loadw %i  
 %t27 =l extsw %t26  
 %t28 =l mul 4, %t27  
 %t24 =l add %t25, %t28  
 storew %t21, %t24  
 %t30 =w loadw %i  
 %t29 =w add %t30, 1  
 storew %t29, %i  
 jmp @l4  
@l6  
 %t31 =w call $go(w 0, ...)  
 %t35 =w loadw %N  
 %t33 =w call $printf(l $glo1, w %t35, ...)  
 ret 0  
}  
  
--- Output: size 900 ---  
@l0  
 rd\_in =   
@l1  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%ac @l0%av @l0%Q @l0%N @l0%i @l0%t @l0%t8 @l0%t6   
@l2  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%ac @l0%av @l0%Q @l0%N @l0%i @l0%t @l0%t8 @l0%t6 @l1%t13 @l1%t12 @l1%t11 @l1%t10   
@l4  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%ac @l0%av @l0%Q @l0%N @l0%i @l0%t @l0%t8 @l0%t6 @l1%t13 @l1%t12 @l1%t11 @l1%t10 @l5%t22 @l5%t21 @l5%t25 @l5%t26 @l5%t27 @l5%t28 @l5%t24 @l5%t30 @l5%t29 @l4%t18 @l4%t19 @l4%t17   
@l5  
 rd\_in = @l4%t18 @l4%t19 @l4%t17 @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%ac @l0%av @l0%Q @l0%N @l0%i @l0%t @l0%t8 @l0%t6 @l1%t13 @l1%t12 @l1%t11 @l1%t10 @l5%t22 @l5%t21 @l5%t25 @l5%t26 @l5%t27 @l5%t28 @l5%t24 @l5%t30 @l5%t29   
@l6  
 rd\_in = @l4%t18 @l4%t19 @l4%t17 @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%ac @l0%av @l0%Q @l0%N @l0%i @l0%t @l0%t8 @l0%t6 @l1%t13 @l1%t12 @l1%t11 @l1%t10 @l5%t22 @l5%t21 @l5%t25 @l5%t26 @l5%t27 @l5%t28 @l5%t24 @l5%t30 @l5%t29   
  
--- Correct: size 900 ---  
@l0  
 rd\_in =  
  
@l1  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%ac @l0%av @l0%Q @l0%N @l0%i @l0%t @l0%t8 @l0%t6  
  
@l2  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%ac @l0%av @l0%Q @l0%N @l0%i @l0%t @l0%t8 @l0%t6 @l1%t13 @l1%t12 @l1%t11 @l1%t10  
  
@l4  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%ac @l0%av @l0%Q @l0%N @l0%i @l0%t @l0%t8 @l0%t6 @l1%t13 @l1%t12 @l1%t11 @l1%t10 @l4%t18 @l4%t19 @l4%t17 @l5%t22 @l5%t21 @l5%t25 @l5%t26 @l5%t27 @l5%t28 @l5%t24 @l5%t30 @l5%t29  
  
@l5  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%ac @l0%av @l0%Q @l0%N @l0%i @l0%t @l0%t8 @l0%t6 @l1%t13 @l1%t12 @l1%t11 @l1%t10 @l4%t18 @l4%t19 @l4%t17 @l5%t22 @l5%t21 @l5%t25 @l5%t26 @l5%t27 @l5%t28 @l5%t24 @l5%t30 @l5%t29  
  
@l6  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%t3 @l0%ac @l0%av @l0%Q @l0%N @l0%i @l0%t @l0%t8 @l0%t6 @l1%t13 @l1%t12 @l1%t11 @l1%t10 @l4%t18 @l4%t19 @l4%t17 @l5%t22 @l5%t21 @l5%t25 @l5%t26 @l5%t27 @l5%t28 @l5%t24 @l5%t30 @l5%t29  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=8, stime=0, ptime=8, rtime=10, maxvsz=21655552, maxrss=3506176, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=3, maxvsz=331776, maxrss=1748992, nvcsw=1, nivcsw=2 }  
  
**====== Test #10 =======**  
--- Input: size 1324 ---  
export function w $main() {  
@l0  
 %n =l alloc4 4  
 %nv =l alloc4 4  
 %c =l alloc4 4  
 %cmax =l alloc4 4  
 %mem =l alloc8 8  
 storew 0, %cmax  
 storew 1, %nv  
@l1  
 %t5 =w loadw %nv  
 %t4 =w csltw %t5, 10  
 jnz %t4, @l2, @l3  
@l2  
 %t8 =w loadw %nv  
 storew %t8, %n  
 storew 0, %c  
@l4  
 %t12 =w loadw %n  
 %t11 =w cnew %t12, 1  
 jnz %t11, @l5, @l6  
@l5  
 %t15 =w loadw %n  
 %t16 =w loadw %nv  
 %t14 =w csltw %t15, %t16  
 jnz %t14, @l7, @l8  
@l7  
 %t19 =w loadw %c  
 %t22 =l loadl %mem  
 %t23 =w loadw %n  
 %t24 =l extsw %t23  
 %t25 =l mul 4, %t24  
 %t21 =l add %t22, %t25  
 %t20 =w loadw %t21  
 %t18 =w add %t19, %t20  
 storew %t18, %c  
 jmp @l6  
@l8  
 %t27 =w loadw %n  
 %t26 =w and %t27, 1  
 jnz %t26, @l10, @l11  
@l10  
 %t33 =w loadw %n  
 %t31 =w mul 3, %t33  
 %t30 =w add %t31, 1  
 storew %t30, %n  
 jmp @l12  
@l11  
 %t37 =w loadw %n  
 %t36 =w div %t37, 2  
 storew %t36, %n  
@l12  
 %t40 =w loadw %c  
 %t39 =w add %t40, 1  
 storew %t39, %c  
 jmp @l4  
@l6  
 %t42 =w loadw %c  
 %t44 =l loadl %mem  
 %t45 =w loadw %nv  
 %t46 =l extsw %t45  
 %t47 =l mul 4, %t46  
 %t43 =l add %t44, %t47  
 storew %t42, %t43  
 %t49 =w loadw %cmax  
 %t50 =w loadw %c  
 %t48 =w csltw %t49, %t50  
 jnz %t48, @l13, @l14  
@l13  
 %t52 =w loadw %c  
 storew %t52, %cmax  
@l14  
 %t54 =w loadw %nv  
 %t53 =w add %t54, 1  
 storew %t53, %nv  
 jmp @l1  
@l3  
 %t57 =w loadw %cmax  
 %t55 =w call $printf(l $glo1, w %t57, ...)  
 ret 0  
}  
  
--- Output: size 4608 ---  
@l0  
 rd\_in =   
@l1  
 rd\_in = @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l14%t54 @l14%t53 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l4%t12 @l4%t11 @l2%t8 @l1%t5 @l1%t4 @l12%t40 @l12%t39 @l10%t33 @l10%t31 @l10%t30 @l8%t27 @l8%t26 @l11%t37 @l11%t36 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l5%t15 @l5%t16 @l5%t14 @l13%t52   
@l2  
 rd\_in = @l1%t5 @l1%t4 @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l14%t54 @l14%t53 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l4%t12 @l4%t11 @l2%t8 @l12%t40 @l12%t39 @l10%t33 @l10%t31 @l10%t30 @l8%t27 @l8%t26 @l11%t37 @l11%t36 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l5%t15 @l5%t16 @l5%t14 @l13%t52   
@l4  
 rd\_in = @l2%t8 @l1%t5 @l1%t4 @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l14%t54 @l14%t53 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l4%t12 @l4%t11 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l13%t52 @l12%t40 @l12%t39 @l10%t33 @l10%t31 @l10%t30 @l8%t27 @l8%t26 @l5%t15 @l5%t16 @l5%t14 @l11%t37 @l11%t36   
@l5  
 rd\_in = @l4%t12 @l4%t11 @l2%t8 @l1%t5 @l1%t4 @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l14%t54 @l14%t53 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l13%t52 @l12%t40 @l12%t39 @l10%t33 @l10%t31 @l10%t30 @l8%t27 @l8%t26 @l5%t15 @l5%t16 @l5%t14 @l11%t37 @l11%t36   
@l7  
 rd\_in = @l5%t15 @l5%t16 @l5%t14 @l4%t12 @l4%t11 @l2%t8 @l1%t5 @l1%t4 @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l14%t54 @l14%t53 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l13%t52 @l12%t40 @l12%t39 @l10%t33 @l10%t31 @l10%t30 @l8%t27 @l8%t26 @l11%t37 @l11%t36   
@l8  
 rd\_in = @l5%t15 @l5%t16 @l5%t14 @l4%t12 @l4%t11 @l2%t8 @l1%t5 @l1%t4 @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l14%t54 @l14%t53 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l13%t52 @l12%t40 @l12%t39 @l10%t33 @l10%t31 @l10%t30 @l8%t27 @l8%t26 @l11%t37 @l11%t36   
@l10  
 rd\_in = @l8%t27 @l8%t26 @l5%t15 @l5%t16 @l5%t14 @l4%t12 @l4%t11 @l2%t8 @l1%t5 @l1%t4 @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l14%t54 @l14%t53 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l13%t52 @l12%t40 @l12%t39 @l10%t33 @l10%t31 @l10%t30 @l11%t37 @l11%t36   
@l11  
 rd\_in = @l8%t27 @l8%t26 @l5%t15 @l5%t16 @l5%t14 @l4%t12 @l4%t11 @l2%t8 @l1%t5 @l1%t4 @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l14%t54 @l14%t53 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l13%t52 @l12%t40 @l12%t39 @l10%t33 @l10%t31 @l10%t30 @l11%t37 @l11%t36   
@l12  
 rd\_in = @l10%t33 @l10%t31 @l10%t30 @l8%t27 @l8%t26 @l5%t15 @l5%t16 @l5%t14 @l4%t12 @l4%t11 @l2%t8 @l1%t5 @l1%t4 @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l14%t54 @l14%t53 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l13%t52 @l12%t40 @l12%t39 @l11%t37 @l11%t36   
@l6  
 rd\_in = @l4%t12 @l4%t11 @l2%t8 @l1%t5 @l1%t4 @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l14%t54 @l14%t53 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l13%t52 @l12%t40 @l12%t39 @l10%t33 @l10%t31 @l10%t30 @l8%t27 @l8%t26 @l5%t15 @l5%t16 @l5%t14 @l11%t37 @l11%t36 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18   
@l13  
 rd\_in = @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l4%t12 @l4%t11 @l2%t8 @l1%t5 @l1%t4 @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l14%t54 @l14%t53 @l13%t52 @l12%t40 @l12%t39 @l10%t33 @l10%t31 @l10%t30 @l8%t27 @l8%t26 @l5%t15 @l5%t16 @l5%t14 @l11%t37 @l11%t36 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18   
@l14  
 rd\_in = @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l4%t12 @l4%t11 @l2%t8 @l1%t5 @l1%t4 @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l14%t54 @l14%t53 @l12%t40 @l12%t39 @l10%t33 @l10%t31 @l10%t30 @l8%t27 @l8%t26 @l11%t37 @l11%t36 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l5%t15 @l5%t16 @l5%t14 @l13%t52   
@l3  
 rd\_in = @l1%t5 @l1%t4 @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l14%t54 @l14%t53 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l4%t12 @l4%t11 @l2%t8 @l12%t40 @l12%t39 @l10%t33 @l10%t31 @l10%t30 @l8%t27 @l8%t26 @l11%t37 @l11%t36 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l5%t15 @l5%t16 @l5%t14 @l13%t52   
  
--- Correct: size 4608 ---  
@l0  
 rd\_in =  
  
@l1  
 rd\_in = @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l1%t5 @l1%t4 @l2%t8 @l4%t12 @l4%t11 @l5%t15 @l5%t16 @l5%t14 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l13%t52 @l14%t54 @l14%t53 @l8%t27 @l8%t26 @l10%t33 @l10%t31 @l10%t30 @l11%t37 @l11%t36 @l12%t40 @l12%t39  
  
@l2  
 rd\_in = @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l1%t5 @l1%t4 @l2%t8 @l4%t12 @l4%t11 @l5%t15 @l5%t16 @l5%t14 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l13%t52 @l14%t54 @l14%t53 @l8%t27 @l8%t26 @l10%t33 @l10%t31 @l10%t30 @l11%t37 @l11%t36 @l12%t40 @l12%t39  
  
@l4  
 rd\_in = @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l1%t5 @l1%t4 @l2%t8 @l4%t12 @l4%t11 @l5%t15 @l5%t16 @l5%t14 @l8%t27 @l8%t26 @l10%t33 @l10%t31 @l10%t30 @l11%t37 @l11%t36 @l12%t40 @l12%t39 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l13%t52 @l14%t54 @l14%t53  
  
@l5  
 rd\_in = @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l1%t5 @l1%t4 @l2%t8 @l4%t12 @l4%t11 @l5%t15 @l5%t16 @l5%t14 @l8%t27 @l8%t26 @l10%t33 @l10%t31 @l10%t30 @l11%t37 @l11%t36 @l12%t40 @l12%t39 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l13%t52 @l14%t54 @l14%t53  
  
@l7  
 rd\_in = @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l1%t5 @l1%t4 @l2%t8 @l4%t12 @l4%t11 @l5%t15 @l5%t16 @l5%t14 @l8%t27 @l8%t26 @l10%t33 @l10%t31 @l10%t30 @l11%t37 @l11%t36 @l12%t40 @l12%t39 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l13%t52 @l14%t54 @l14%t53  
  
@l8  
 rd\_in = @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l1%t5 @l1%t4 @l2%t8 @l4%t12 @l4%t11 @l5%t15 @l5%t16 @l5%t14 @l8%t27 @l8%t26 @l10%t33 @l10%t31 @l10%t30 @l11%t37 @l11%t36 @l12%t40 @l12%t39 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l13%t52 @l14%t54 @l14%t53  
  
@l10  
 rd\_in = @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l1%t5 @l1%t4 @l2%t8 @l4%t12 @l4%t11 @l5%t15 @l5%t16 @l5%t14 @l8%t27 @l8%t26 @l10%t33 @l10%t31 @l10%t30 @l11%t37 @l11%t36 @l12%t40 @l12%t39 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l13%t52 @l14%t54 @l14%t53  
  
@l11  
 rd\_in = @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l1%t5 @l1%t4 @l2%t8 @l4%t12 @l4%t11 @l5%t15 @l5%t16 @l5%t14 @l8%t27 @l8%t26 @l10%t33 @l10%t31 @l10%t30 @l11%t37 @l11%t36 @l12%t40 @l12%t39 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l13%t52 @l14%t54 @l14%t53  
  
@l12  
 rd\_in = @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l1%t5 @l1%t4 @l2%t8 @l4%t12 @l4%t11 @l5%t15 @l5%t16 @l5%t14 @l8%t27 @l8%t26 @l10%t33 @l10%t31 @l10%t30 @l11%t37 @l11%t36 @l12%t40 @l12%t39 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l13%t52 @l14%t54 @l14%t53  
  
@l6  
 rd\_in = @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l1%t5 @l1%t4 @l2%t8 @l4%t12 @l4%t11 @l5%t15 @l5%t16 @l5%t14 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l8%t27 @l8%t26 @l10%t33 @l10%t31 @l10%t30 @l11%t37 @l11%t36 @l12%t40 @l12%t39 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l13%t52 @l14%t54 @l14%t53  
  
@l13  
 rd\_in = @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l1%t5 @l1%t4 @l2%t8 @l4%t12 @l4%t11 @l5%t15 @l5%t16 @l5%t14 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l8%t27 @l8%t26 @l10%t33 @l10%t31 @l10%t30 @l11%t37 @l11%t36 @l12%t40 @l12%t39 @l13%t52 @l14%t54 @l14%t53  
  
@l14  
 rd\_in = @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l1%t5 @l1%t4 @l2%t8 @l4%t12 @l4%t11 @l5%t15 @l5%t16 @l5%t14 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l13%t52 @l8%t27 @l8%t26 @l10%t33 @l10%t31 @l10%t30 @l11%t37 @l11%t36 @l12%t40 @l12%t39 @l14%t54 @l14%t53  
  
@l3  
 rd\_in = @l0%n @l0%nv @l0%c @l0%cmax @l0%mem @l1%t5 @l1%t4 @l2%t8 @l4%t12 @l4%t11 @l5%t15 @l5%t16 @l5%t14 @l7%t19 @l7%t22 @l7%t23 @l7%t24 @l7%t25 @l7%t21 @l7%t20 @l7%t18 @l6%t42 @l6%t44 @l6%t45 @l6%t46 @l6%t47 @l6%t43 @l6%t49 @l6%t50 @l6%t48 @l13%t52 @l14%t54 @l14%t53 @l8%t27 @l8%t26 @l10%t33 @l10%t31 @l10%t30 @l11%t37 @l11%t36 @l12%t40 @l12%t39  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=76, stime=0, ptime=76, rtime=80, maxvsz=21655552, maxrss=3624960, nvcsw=1, nivcsw=8 }  
checker: { utime=0, stime=0, ptime=0, rtime=3, maxvsz=331776, maxrss=1753088, nvcsw=1, nivcsw=2 }  
  
**====== Test #11 =======**  
--- Input: size 1359 ---  
export function w $main() {  
@l0  
 %i =l alloc4 4  
 %a =l alloc4 4  
 %b =l alloc4 4  
 %c =l alloc4 4  
 %d =l alloc4 4  
 storew 1, %a  
@l1  
 %t3 =w loadw %a  
 %t2 =w csltw %t3, 1000  
 jnz %t2, @l2, @l3  
@l2  
 %t7 =w loadw %a  
 %t6 =w add %t7, 1  
 storew %t6, %b  
@l4  
 %t10 =w loadw %b  
 %t9 =w csltw %t10, 1000  
 jnz %t9, @l5, @l6  
@l5  
 %t15 =w loadw %a  
 %t16 =w loadw %a  
 %t14 =w mul %t15, %t16  
 %t18 =w loadw %b  
 %t19 =w loadw %b  
 %t17 =w mul %t18, %t19  
 %t13 =w add %t14, %t17  
 storew %t13, %d  
 storew 0, %i  
@l7  
 %t23 =w loadw %i  
 %t22 =w csltw %t23, 1000  
 jnz %t22, @l8, @l9  
@l8  
 %t27 =w loadw %i  
 %t28 =w loadw %i  
 %t26 =w mul %t27, %t28  
 %t29 =w loadw %d  
 %t25 =w ceqw %t26, %t29  
 jnz %t25, @l10, @l11  
@l10  
 %t31 =w loadw %i  
 storew %t31, %c  
 %t33 =w loadw %b  
 %t34 =w loadw %c  
 %t32 =w csltw %t33, %t34  
 jnz %t32, @l16, @l14  
@l16  
 %t38 =w loadw %a  
 %t39 =w loadw %b  
 %t37 =w add %t38, %t39  
 %t40 =w loadw %c  
 %t36 =w add %t37, %t40  
 %t35 =w ceqw %t36, 1000  
 jnz %t35, @l13, @l14  
@l13  
 %t46 =w loadw %a  
 %t47 =w loadw %b  
 %t45 =w mul %t46, %t47  
 %t48 =w loadw %c  
 %t44 =w mul %t45, %t48  
 %t42 =w call $printf(l $glo1, w %t44, ...)  
 ret 0  
@l14  
 jmp @l9  
@l11  
 %t51 =w loadw %i  
 %t50 =w add %t51, 1  
 storew %t50, %i  
 jmp @l7  
@l9  
 %t53 =w loadw %b  
 %t52 =w add %t53, 1  
 storew %t52, %b  
 jmp @l4  
@l6  
 %t55 =w loadw %a  
 %t54 =w add %t55, 1  
 storew %t54, %a  
 jmp @l1  
@l3  
 ret 0  
}  
  
--- Output: size 4765 ---  
@l0  
 rd\_in =   
@l1  
 rd\_in = @l0%i @l0%a @l0%b @l0%c @l0%d @l6%t55 @l6%t54 @l4%t10 @l4%t9 @l2%t7 @l2%t6 @l1%t3 @l1%t2 @l9%t53 @l9%t52 @l7%t23 @l7%t22 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l11%t51 @l11%t50 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35   
@l2  
 rd\_in = @l1%t3 @l1%t2 @l0%i @l0%a @l0%b @l0%c @l0%d @l6%t55 @l6%t54 @l4%t10 @l4%t9 @l2%t7 @l2%t6 @l9%t53 @l9%t52 @l7%t23 @l7%t22 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l11%t51 @l11%t50 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35   
@l4  
 rd\_in = @l2%t7 @l2%t6 @l1%t3 @l1%t2 @l0%i @l0%a @l0%b @l0%c @l0%d @l6%t55 @l6%t54 @l4%t10 @l4%t9 @l9%t53 @l9%t52 @l7%t23 @l7%t22 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l11%t51 @l11%t50 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35   
@l5  
 rd\_in = @l4%t10 @l4%t9 @l2%t7 @l2%t6 @l1%t3 @l1%t2 @l0%i @l0%a @l0%b @l0%c @l0%d @l6%t55 @l6%t54 @l9%t53 @l9%t52 @l7%t23 @l7%t22 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l11%t51 @l11%t50 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35   
@l7  
 rd\_in = @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l4%t10 @l4%t9 @l2%t7 @l2%t6 @l1%t3 @l1%t2 @l0%i @l0%a @l0%b @l0%c @l0%d @l6%t55 @l6%t54 @l9%t53 @l9%t52 @l7%t23 @l7%t22 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l11%t51 @l11%t50 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25   
@l8  
 rd\_in = @l7%t23 @l7%t22 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l4%t10 @l4%t9 @l2%t7 @l2%t6 @l1%t3 @l1%t2 @l0%i @l0%a @l0%b @l0%c @l0%d @l6%t55 @l6%t54 @l9%t53 @l9%t52 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l11%t51 @l11%t50 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25   
@l10  
 rd\_in = @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l7%t23 @l7%t22 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l4%t10 @l4%t9 @l2%t7 @l2%t6 @l1%t3 @l1%t2 @l0%i @l0%a @l0%b @l0%c @l0%d @l6%t55 @l6%t54 @l9%t53 @l9%t52 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l11%t51 @l11%t50   
@l16  
 rd\_in = @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l7%t23 @l7%t22 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l4%t10 @l4%t9 @l2%t7 @l2%t6 @l1%t3 @l1%t2 @l0%i @l0%a @l0%b @l0%c @l0%d @l6%t55 @l6%t54 @l9%t53 @l9%t52 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l11%t51 @l11%t50   
@l13  
 rd\_in = @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l7%t23 @l7%t22 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l4%t10 @l4%t9 @l2%t7 @l2%t6 @l1%t3 @l1%t2 @l0%i @l0%a @l0%b @l0%c @l0%d @l6%t55 @l6%t54 @l9%t53 @l9%t52 @l11%t51 @l11%t50   
@l14  
 rd\_in = @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l7%t23 @l7%t22 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l4%t10 @l4%t9 @l2%t7 @l2%t6 @l1%t3 @l1%t2 @l0%i @l0%a @l0%b @l0%c @l0%d @l6%t55 @l6%t54 @l9%t53 @l9%t52 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l11%t51 @l11%t50   
@l11  
 rd\_in = @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l7%t23 @l7%t22 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l4%t10 @l4%t9 @l2%t7 @l2%t6 @l1%t3 @l1%t2 @l0%i @l0%a @l0%b @l0%c @l0%d @l6%t55 @l6%t54 @l9%t53 @l9%t52 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l11%t51 @l11%t50   
@l9  
 rd\_in = @l7%t23 @l7%t22 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l4%t10 @l4%t9 @l2%t7 @l2%t6 @l1%t3 @l1%t2 @l0%i @l0%a @l0%b @l0%c @l0%d @l6%t55 @l6%t54 @l9%t53 @l9%t52 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l11%t51 @l11%t50 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25   
@l6  
 rd\_in = @l4%t10 @l4%t9 @l2%t7 @l2%t6 @l1%t3 @l1%t2 @l0%i @l0%a @l0%b @l0%c @l0%d @l6%t55 @l6%t54 @l9%t53 @l9%t52 @l7%t23 @l7%t22 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l11%t51 @l11%t50 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35   
@l3  
 rd\_in = @l1%t3 @l1%t2 @l0%i @l0%a @l0%b @l0%c @l0%d @l6%t55 @l6%t54 @l4%t10 @l4%t9 @l2%t7 @l2%t6 @l9%t53 @l9%t52 @l7%t23 @l7%t22 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l11%t51 @l11%t50 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35   
  
--- Correct: size 4765 ---  
@l0  
 rd\_in =  
  
@l1  
 rd\_in = @l0%i @l0%a @l0%b @l0%c @l0%d @l1%t3 @l1%t2 @l2%t7 @l2%t6 @l4%t10 @l4%t9 @l6%t55 @l6%t54 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l7%t23 @l7%t22 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l9%t53 @l9%t52 @l11%t51 @l11%t50  
  
@l2  
 rd\_in = @l0%i @l0%a @l0%b @l0%c @l0%d @l1%t3 @l1%t2 @l2%t7 @l2%t6 @l4%t10 @l4%t9 @l6%t55 @l6%t54 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l7%t23 @l7%t22 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l9%t53 @l9%t52 @l11%t51 @l11%t50  
  
@l4  
 rd\_in = @l0%i @l0%a @l0%b @l0%c @l0%d @l1%t3 @l1%t2 @l2%t7 @l2%t6 @l4%t10 @l4%t9 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l7%t23 @l7%t22 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l9%t53 @l9%t52 @l11%t51 @l11%t50 @l6%t55 @l6%t54  
  
@l5  
 rd\_in = @l0%i @l0%a @l0%b @l0%c @l0%d @l1%t3 @l1%t2 @l2%t7 @l2%t6 @l4%t10 @l4%t9 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l7%t23 @l7%t22 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l9%t53 @l9%t52 @l11%t51 @l11%t50 @l6%t55 @l6%t54  
  
@l7  
 rd\_in = @l0%i @l0%a @l0%b @l0%c @l0%d @l1%t3 @l1%t2 @l2%t7 @l2%t6 @l4%t10 @l4%t9 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l7%t23 @l7%t22 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l11%t51 @l11%t50 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l9%t53 @l9%t52 @l6%t55 @l6%t54  
  
@l8  
 rd\_in = @l0%i @l0%a @l0%b @l0%c @l0%d @l1%t3 @l1%t2 @l2%t7 @l2%t6 @l4%t10 @l4%t9 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l7%t23 @l7%t22 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l11%t51 @l11%t50 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l9%t53 @l9%t52 @l6%t55 @l6%t54  
  
@l10  
 rd\_in = @l0%i @l0%a @l0%b @l0%c @l0%d @l1%t3 @l1%t2 @l2%t7 @l2%t6 @l4%t10 @l4%t9 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l7%t23 @l7%t22 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l11%t51 @l11%t50 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l9%t53 @l9%t52 @l6%t55 @l6%t54  
  
@l16  
 rd\_in = @l0%i @l0%a @l0%b @l0%c @l0%d @l1%t3 @l1%t2 @l2%t7 @l2%t6 @l4%t10 @l4%t9 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l7%t23 @l7%t22 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l11%t51 @l11%t50 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l9%t53 @l9%t52 @l6%t55 @l6%t54  
  
@l13  
 rd\_in = @l0%i @l0%a @l0%b @l0%c @l0%d @l1%t3 @l1%t2 @l2%t7 @l2%t6 @l4%t10 @l4%t9 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l7%t23 @l7%t22 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l11%t51 @l11%t50 @l9%t53 @l9%t52 @l6%t55 @l6%t54  
  
@l14  
 rd\_in = @l0%i @l0%a @l0%b @l0%c @l0%d @l1%t3 @l1%t2 @l2%t7 @l2%t6 @l4%t10 @l4%t9 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l7%t23 @l7%t22 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l11%t51 @l11%t50 @l9%t53 @l9%t52 @l6%t55 @l6%t54  
  
@l11  
 rd\_in = @l0%i @l0%a @l0%b @l0%c @l0%d @l1%t3 @l1%t2 @l2%t7 @l2%t6 @l4%t10 @l4%t9 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l7%t23 @l7%t22 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l11%t51 @l11%t50 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l9%t53 @l9%t52 @l6%t55 @l6%t54  
  
@l9  
 rd\_in = @l0%i @l0%a @l0%b @l0%c @l0%d @l1%t3 @l1%t2 @l2%t7 @l2%t6 @l4%t10 @l4%t9 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l7%t23 @l7%t22 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l11%t51 @l11%t50 @l9%t53 @l9%t52 @l6%t55 @l6%t54  
  
@l6  
 rd\_in = @l0%i @l0%a @l0%b @l0%c @l0%d @l1%t3 @l1%t2 @l2%t7 @l2%t6 @l4%t10 @l4%t9 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l7%t23 @l7%t22 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l9%t53 @l9%t52 @l11%t51 @l11%t50 @l6%t55 @l6%t54  
  
@l3  
 rd\_in = @l0%i @l0%a @l0%b @l0%c @l0%d @l1%t3 @l1%t2 @l2%t7 @l2%t6 @l4%t10 @l4%t9 @l6%t55 @l6%t54 @l5%t15 @l5%t16 @l5%t14 @l5%t18 @l5%t19 @l5%t17 @l5%t13 @l7%t23 @l7%t22 @l8%t27 @l8%t28 @l8%t26 @l8%t29 @l8%t25 @l10%t31 @l10%t33 @l10%t34 @l10%t32 @l16%t38 @l16%t39 @l16%t37 @l16%t40 @l16%t36 @l16%t35 @l9%t53 @l9%t52 @l11%t51 @l11%t50  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=76, stime=0, ptime=76, rtime=80, maxvsz=21655552, maxrss=3637248, nvcsw=1, nivcsw=3 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1761280, nvcsw=1, nivcsw=2 }  
  
**====== Test #12 =======**  
--- Input: size 726 ---  
export function w $board() {  
@l0  
 %x =l alloc4 4  
 %y =l alloc4 4  
 %b =l alloc8 8  
 storew 0, %y  
@l1  
 %t3 =w loadw %y  
 %t2 =w csltw %t3, 8  
 jnz %t2, @l2, @l3  
@l2  
 storew 0, %x  
@l4  
 %t8 =w loadw %x  
 %t7 =w csltw %t8, 8  
 jnz %t7, @l5, @l6  
@l5  
 %t16 =l loadl %b  
 %t17 =w loadw %x  
 %t18 =l extsw %t17  
 %t19 =l mul 8, %t18  
 %t15 =l add %t16, %t19  
 %t14 =l loadl %t15  
 %t20 =w loadw %y  
 %t21 =l extsw %t20  
 %t22 =l mul 4, %t21  
 %t13 =l add %t14, %t22  
 %t12 =w loadw %t13  
 %t10 =w call $printf(l $glo1, w %t12, ...)  
 %t24 =w loadw %x  
 %t23 =w add %t24, 1  
 storew %t23, %x  
 jmp @l4  
@l6  
 %t25 =w call $printf(l $glo2, ...)  
 %t28 =w loadw %y  
 %t27 =w add %t28, 1  
 storew %t27, %y  
 jmp @l1  
@l3  
 %t29 =w call $printf(l $glo3, ...)  
 ret 0  
}  
  
--- Output: size 1190 ---  
@l0  
 rd\_in =   
@l1  
 rd\_in = @l0%x @l0%y @l0%b @l6%t25 @l6%t28 @l6%t27 @l4%t8 @l4%t7 @l1%t3 @l1%t2 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l5%t10 @l5%t24 @l5%t23   
@l2  
 rd\_in = @l1%t3 @l1%t2 @l0%x @l0%y @l0%b @l6%t25 @l6%t28 @l6%t27 @l4%t8 @l4%t7 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l5%t10 @l5%t24 @l5%t23   
@l4  
 rd\_in = @l1%t3 @l1%t2 @l0%x @l0%y @l0%b @l6%t25 @l6%t28 @l6%t27 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l5%t10 @l5%t24 @l5%t23 @l4%t8 @l4%t7   
@l5  
 rd\_in = @l4%t8 @l4%t7 @l1%t3 @l1%t2 @l0%x @l0%y @l0%b @l6%t25 @l6%t28 @l6%t27 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l5%t10 @l5%t24 @l5%t23   
@l6  
 rd\_in = @l4%t8 @l4%t7 @l1%t3 @l1%t2 @l0%x @l0%y @l0%b @l6%t25 @l6%t28 @l6%t27 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l5%t10 @l5%t24 @l5%t23   
@l3  
 rd\_in = @l1%t3 @l1%t2 @l0%x @l0%y @l0%b @l6%t25 @l6%t28 @l6%t27 @l4%t8 @l4%t7 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l5%t10 @l5%t24 @l5%t23   
  
--- Correct: size 1190 ---  
@l0  
 rd\_in =  
  
@l1  
 rd\_in = @l0%x @l0%y @l0%b @l1%t3 @l1%t2 @l4%t8 @l4%t7 @l6%t25 @l6%t28 @l6%t27 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l5%t10 @l5%t24 @l5%t23  
  
@l2  
 rd\_in = @l0%x @l0%y @l0%b @l1%t3 @l1%t2 @l4%t8 @l4%t7 @l6%t25 @l6%t28 @l6%t27 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l5%t10 @l5%t24 @l5%t23  
  
@l4  
 rd\_in = @l0%x @l0%y @l0%b @l1%t3 @l1%t2 @l4%t8 @l4%t7 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l5%t10 @l5%t24 @l5%t23 @l6%t25 @l6%t28 @l6%t27  
  
@l5  
 rd\_in = @l0%x @l0%y @l0%b @l1%t3 @l1%t2 @l4%t8 @l4%t7 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l5%t10 @l5%t24 @l5%t23 @l6%t25 @l6%t28 @l6%t27  
  
@l6  
 rd\_in = @l0%x @l0%y @l0%b @l1%t3 @l1%t2 @l4%t8 @l4%t7 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l5%t10 @l5%t24 @l5%t23 @l6%t25 @l6%t28 @l6%t27  
  
@l3  
 rd\_in = @l0%x @l0%y @l0%b @l1%t3 @l1%t2 @l4%t8 @l4%t7 @l6%t25 @l6%t28 @l6%t27 @l5%t16 @l5%t17 @l5%t18 @l5%t19 @l5%t15 @l5%t14 @l5%t20 @l5%t21 @l5%t22 @l5%t13 @l5%t12 @l5%t10 @l5%t24 @l5%t23  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=4, stime=0, ptime=4, rtime=6, maxvsz=21655552, maxrss=3624960, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1773568, nvcsw=1, nivcsw=2 }  
  
**====== Test #13 =======**  
--- Input: size 641 ---  
export function w $chk(w %t0, w %t1) {  
@l0  
 %x =l alloc4 4  
 storew %t0, %x  
 %y =l alloc4 4  
 storew %t1, %y  
 %b =l alloc8 8  
 %t3 =w loadw %x  
 %t2 =w csltw %t3, 0  
 jnz %t2, @l1, @l6  
@l6  
 %t7 =w loadw %x  
 %t5 =w csltw 7, %t7  
 jnz %t5, @l1, @l5  
@l5  
 %t9 =w loadw %y  
 %t8 =w csltw %t9, 0  
 jnz %t8, @l1, @l4  
@l4  
 %t13 =w loadw %y  
 %t11 =w csltw 7, %t13  
 jnz %t11, @l1, @l2  
@l1  
 ret 0  
@l2  
 %t20 =l loadl %b  
 %t21 =w loadw %x  
 %t22 =l extsw %t21  
 %t23 =l mul 8, %t22  
 %t19 =l add %t20, %t23  
 %t18 =l loadl %t19  
 %t24 =w loadw %y  
 %t25 =l extsw %t24  
 %t26 =l mul 4, %t25  
 %t17 =l add %t18, %t26  
 %t16 =w loadw %t17  
 %t15 =w ceqw %t16, 0  
 ret %t15  
}  
  
  
--- Output: size 444 ---  
@l0  
 rd\_in =   
@l6  
 rd\_in = @l0%t0 @l0%t1 @l0%x @l0%y @l0%b @l0%t3 @l0%t2   
@l5  
 rd\_in = @l6%t7 @l6%t5 @l0%t0 @l0%t1 @l0%x @l0%y @l0%b @l0%t3 @l0%t2   
@l4  
 rd\_in = @l5%t9 @l5%t8 @l6%t7 @l6%t5 @l0%t0 @l0%t1 @l0%x @l0%y @l0%b @l0%t3 @l0%t2   
@l1  
 rd\_in = @l0%t0 @l0%t1 @l0%x @l0%y @l0%b @l0%t3 @l0%t2 @l6%t7 @l6%t5 @l5%t9 @l5%t8 @l4%t13 @l4%t11   
@l2  
 rd\_in = @l4%t13 @l4%t11 @l5%t9 @l5%t8 @l6%t7 @l6%t5 @l0%t0 @l0%t1 @l0%x @l0%y @l0%b @l0%t3 @l0%t2   
  
--- Correct: size 444 ---  
@l0  
 rd\_in =  
  
@l6  
 rd\_in = @l0%t0 @l0%t1 @l0%x @l0%y @l0%b @l0%t3 @l0%t2  
  
@l5  
 rd\_in = @l0%t0 @l0%t1 @l0%x @l0%y @l0%b @l0%t3 @l0%t2 @l6%t7 @l6%t5  
  
@l4  
 rd\_in = @l0%t0 @l0%t1 @l0%x @l0%y @l0%b @l0%t3 @l0%t2 @l6%t7 @l6%t5 @l5%t9 @l5%t8  
  
@l1  
 rd\_in = @l0%t0 @l0%t1 @l0%x @l0%y @l0%b @l0%t3 @l0%t2 @l6%t7 @l6%t5 @l5%t9 @l5%t8 @l4%t13 @l4%t11  
  
@l2  
 rd\_in = @l0%t0 @l0%t1 @l0%x @l0%y @l0%b @l0%t3 @l0%t2 @l6%t7 @l6%t5 @l5%t9 @l5%t8 @l4%t13 @l4%t11  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=3, maxvsz=21655552, maxrss=3399680, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1777664, nvcsw=1, nivcsw=2 }  
  
**====== Test #14 =======**  
--- Input: size 2185 ---  
export function w $go(w %t0, w %t1, w %t2) {  
@l0  
 %k =l alloc4 4  
 storew %t0, %k  
 %x =l alloc4 4  
 storew %t1, %x  
 %y =l alloc4 4  
 storew %t2, %y  
 %i =l alloc4 4  
 %j =l alloc4 4  
 %b =l alloc8 8  
 %N =l alloc4 4  
 %t4 =w loadw %k  
 %t8 =l loadl %b  
 %t9 =w loadw %x  
 %t10 =l extsw %t9  
 %t11 =l mul 8, %t10  
 %t7 =l add %t8, %t11  
 %t6 =l loadl %t7  
 %t12 =w loadw %y  
 %t13 =l extsw %t12  
 %t14 =l mul 4, %t13  
 %t5 =l add %t6, %t14  
 storew %t4, %t5  
 %t16 =w loadw %k  
 %t15 =w ceqw %t16, 64  
 jnz %t15, @l1, @l2  
@l1  
 %t19 =w loadw %x  
 %t18 =w cnew %t19, 2  
 jnz %t18, @l8, @l5  
@l8  
 %t22 =w loadw %y  
 %t21 =w cnew %t22, 0  
 jnz %t21, @l7, @l5  
@l7  
 %t28 =w loadw %x  
 %t27 =w sub %t28, 2  
 %t26 =w call $abs(w %t27, ...)  
 %t31 =w loadw %y  
 %t30 =w call $abs(w %t31, ...)  
 %t25 =w add %t26, %t30  
 %t24 =w ceqw %t25, 3  
 jnz %t24, @l4, @l5  
@l4  
 %t33 =w call $board(...)  
 %t35 =w loadw %N  
 %t34 =w add %t35, 1  
 storew %t34, %N  
 %t37 =w loadw %N  
 %t36 =w ceqw %t37, 10  
 jnz %t36, @l9, @l10  
@l9  
 %t39 =w call $exit(w 0, ...)  
@l10  
@l5  
 jmp @l3  
@l2  
 %t42 =w sub 0, 2  
 storew %t42, %i  
@l12  
 %t46 =w loadw %i  
 %t45 =w cslew %t46, 2  
 jnz %t45, @l13, @l14  
@l13  
 %t49 =w sub 0, 2  
 storew %t49, %j  
@l15  
 %t53 =w loadw %j  
 %t52 =w cslew %t53, 2  
 jnz %t52, @l16, @l17  
@l16  
 %t58 =w loadw %i  
 %t57 =w call $abs(w %t58, ...)  
 %t60 =w loadw %j  
 %t59 =w call $abs(w %t60, ...)  
 %t56 =w add %t57, %t59  
 %t55 =w ceqw %t56, 3  
 jnz %t55, @l21, @l19  
@l21  
 %t64 =w loadw %x  
 %t65 =w loadw %i  
 %t63 =w add %t64, %t65  
 %t67 =w loadw %y  
 %t68 =w loadw %j  
 %t66 =w add %t67, %t68  
 %t62 =w call $chk(w %t63, w %t66, ...)  
 jnz %t62, @l18, @l19  
@l18  
 %t71 =w loadw %k  
 %t70 =w add %t71, 1  
 %t74 =w loadw %x  
 %t75 =w loadw %i  
 %t73 =w add %t74, %t75  
 %t77 =w loadw %y  
 %t78 =w loadw %j  
 %t76 =w add %t77, %t78  
 %t69 =w call $go(w %t70, w %t73, w %t76, ...)  
@l19  
 %t80 =w loadw %j  
 %t79 =w add %t80, 1  
 storew %t79, %j  
 jmp @l15  
@l17  
 %t82 =w loadw %i  
 %t81 =w add %t82, 1  
 storew %t81, %i  
 jmp @l12  
@l14  
@l3  
 %t88 =l loadl %b  
 %t89 =w loadw %x  
 %t90 =l extsw %t89  
 %t91 =l mul 8, %t90  
 %t87 =l add %t88, %t91  
 %t86 =l loadl %t87  
 %t92 =w loadw %y  
 %t93 =l extsw %t92  
 %t94 =l mul 4, %t93  
 %t85 =l add %t86, %t94  
 storew 0, %t85  
 ret 0  
}  
  
  
--- Output: size 6716 ---  
@l0  
 rd\_in =   
@l1  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15   
@l8  
 rd\_in = @l1%t19 @l1%t18 @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15   
@l7  
 rd\_in = @l8%t22 @l8%t21 @l1%t19 @l1%t18 @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15   
@l4  
 rd\_in = @l7%t28 @l7%t27 @l7%t26 @l7%t31 @l7%t30 @l7%t25 @l7%t24 @l8%t22 @l8%t21 @l1%t19 @l1%t18 @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15   
@l9  
 rd\_in = @l4%t33 @l4%t35 @l4%t34 @l4%t37 @l4%t36 @l7%t28 @l7%t27 @l7%t26 @l7%t31 @l7%t30 @l7%t25 @l7%t24 @l8%t22 @l8%t21 @l1%t19 @l1%t18 @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15   
@l10  
 rd\_in = @l4%t33 @l4%t35 @l4%t34 @l4%t37 @l4%t36 @l7%t28 @l7%t27 @l7%t26 @l7%t31 @l7%t30 @l7%t25 @l7%t24 @l8%t22 @l8%t21 @l1%t19 @l1%t18 @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l9%t39   
@l5  
 rd\_in = @l1%t19 @l1%t18 @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l8%t22 @l8%t21 @l7%t28 @l7%t27 @l7%t26 @l7%t31 @l7%t30 @l7%t25 @l7%t24 @l4%t33 @l4%t35 @l4%t34 @l4%t37 @l4%t36 @l9%t39   
@l2  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15   
@l12  
 rd\_in = @l2%t42 @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l17%t82 @l17%t81 @l15%t53 @l15%t52 @l13%t49 @l12%t46 @l12%t45 @l19%t80 @l19%t79 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69   
@l13  
 rd\_in = @l12%t46 @l12%t45 @l2%t42 @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l17%t82 @l17%t81 @l15%t53 @l15%t52 @l13%t49 @l19%t80 @l19%t79 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69   
@l15  
 rd\_in = @l13%t49 @l12%t46 @l12%t45 @l2%t42 @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l17%t82 @l17%t81 @l19%t80 @l19%t79 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l15%t53 @l15%t52 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69   
@l16  
 rd\_in = @l15%t53 @l15%t52 @l13%t49 @l12%t46 @l12%t45 @l2%t42 @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l17%t82 @l17%t81 @l19%t80 @l19%t79 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69   
@l21  
 rd\_in = @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l15%t53 @l15%t52 @l13%t49 @l12%t46 @l12%t45 @l2%t42 @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l17%t82 @l17%t81 @l19%t80 @l19%t79 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69   
@l18  
 rd\_in = @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l15%t53 @l15%t52 @l13%t49 @l12%t46 @l12%t45 @l2%t42 @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l17%t82 @l17%t81 @l19%t80 @l19%t79 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69   
@l19  
 rd\_in = @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l15%t53 @l15%t52 @l13%t49 @l12%t46 @l12%t45 @l2%t42 @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l17%t82 @l17%t81 @l19%t80 @l19%t79 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69   
@l17  
 rd\_in = @l15%t53 @l15%t52 @l13%t49 @l12%t46 @l12%t45 @l2%t42 @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l17%t82 @l17%t81 @l19%t80 @l19%t79 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69   
@l14  
 rd\_in = @l12%t46 @l12%t45 @l2%t42 @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l17%t82 @l17%t81 @l15%t53 @l15%t52 @l13%t49 @l19%t80 @l19%t79 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69   
@l3  
 rd\_in = @l1%t19 @l1%t18 @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l8%t22 @l8%t21 @l7%t28 @l7%t27 @l7%t26 @l7%t31 @l7%t30 @l7%t25 @l7%t24 @l4%t33 @l4%t35 @l4%t34 @l4%t37 @l4%t36 @l9%t39 @l12%t46 @l12%t45 @l2%t42 @l17%t82 @l17%t81 @l15%t53 @l15%t52 @l13%t49 @l19%t80 @l19%t79 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69   
  
--- Correct: size 6716 ---  
@l0  
 rd\_in =  
  
@l1  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15  
  
@l8  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l1%t19 @l1%t18  
  
@l7  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l1%t19 @l1%t18 @l8%t22 @l8%t21  
  
@l4  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l1%t19 @l1%t18 @l8%t22 @l8%t21 @l7%t28 @l7%t27 @l7%t26 @l7%t31 @l7%t30 @l7%t25 @l7%t24  
  
@l9  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l1%t19 @l1%t18 @l8%t22 @l8%t21 @l7%t28 @l7%t27 @l7%t26 @l7%t31 @l7%t30 @l7%t25 @l7%t24 @l4%t33 @l4%t35 @l4%t34 @l4%t37 @l4%t36  
  
@l10  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l1%t19 @l1%t18 @l8%t22 @l8%t21 @l7%t28 @l7%t27 @l7%t26 @l7%t31 @l7%t30 @l7%t25 @l7%t24 @l4%t33 @l4%t35 @l4%t34 @l4%t37 @l4%t36 @l9%t39  
  
@l5  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l1%t19 @l1%t18 @l8%t22 @l8%t21 @l7%t28 @l7%t27 @l7%t26 @l7%t31 @l7%t30 @l7%t25 @l7%t24 @l4%t33 @l4%t35 @l4%t34 @l4%t37 @l4%t36 @l9%t39  
  
@l2  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15  
  
@l12  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l2%t42 @l12%t46 @l12%t45 @l13%t49 @l15%t53 @l15%t52 @l17%t82 @l17%t81 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69 @l19%t80 @l19%t79  
  
@l13  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l2%t42 @l12%t46 @l12%t45 @l13%t49 @l15%t53 @l15%t52 @l17%t82 @l17%t81 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69 @l19%t80 @l19%t79  
  
@l15  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l2%t42 @l12%t46 @l12%t45 @l13%t49 @l15%t53 @l15%t52 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69 @l19%t80 @l19%t79 @l17%t82 @l17%t81  
  
@l16  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l2%t42 @l12%t46 @l12%t45 @l13%t49 @l15%t53 @l15%t52 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69 @l19%t80 @l19%t79 @l17%t82 @l17%t81  
  
@l21  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l2%t42 @l12%t46 @l12%t45 @l13%t49 @l15%t53 @l15%t52 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69 @l19%t80 @l19%t79 @l17%t82 @l17%t81  
  
@l18  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l2%t42 @l12%t46 @l12%t45 @l13%t49 @l15%t53 @l15%t52 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69 @l19%t80 @l19%t79 @l17%t82 @l17%t81  
  
@l19  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l2%t42 @l12%t46 @l12%t45 @l13%t49 @l15%t53 @l15%t52 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69 @l19%t80 @l19%t79 @l17%t82 @l17%t81  
  
@l17  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l2%t42 @l12%t46 @l12%t45 @l13%t49 @l15%t53 @l15%t52 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69 @l19%t80 @l19%t79 @l17%t82 @l17%t81  
  
@l14  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l2%t42 @l12%t46 @l12%t45 @l13%t49 @l15%t53 @l15%t52 @l17%t82 @l17%t81 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69 @l19%t80 @l19%t79  
  
@l3  
 rd\_in = @l0%t0 @l0%t1 @l0%t2 @l0%k @l0%x @l0%y @l0%i @l0%j @l0%b @l0%N @l0%t4 @l0%t8 @l0%t9 @l0%t10 @l0%t11 @l0%t7 @l0%t6 @l0%t12 @l0%t13 @l0%t14 @l0%t5 @l0%t16 @l0%t15 @l1%t19 @l1%t18 @l8%t22 @l8%t21 @l7%t28 @l7%t27 @l7%t26 @l7%t31 @l7%t30 @l7%t25 @l7%t24 @l4%t33 @l4%t35 @l4%t34 @l4%t37 @l4%t36 @l9%t39 @l2%t42 @l12%t46 @l12%t45 @l13%t49 @l15%t53 @l15%t52 @l17%t82 @l17%t81 @l16%t58 @l16%t57 @l16%t60 @l16%t59 @l16%t56 @l16%t55 @l21%t64 @l21%t65 @l21%t63 @l21%t67 @l21%t68 @l21%t66 @l21%t62 @l18%t71 @l18%t70 @l18%t74 @l18%t75 @l18%t73 @l18%t77 @l18%t78 @l18%t76 @l18%t69 @l19%t80 @l19%t79  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=60, stime=0, ptime=60, rtime=60, maxvsz=21655552, maxrss=3719168, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1798144, nvcsw=1, nivcsw=2 }  
  
**====== Test #15 =======**  
--- Input: size 392 ---  
export function w $main() {  
@l0  
 %i =l alloc4 4  
 %b =l alloc8 8  
 %t0 =w call $printf(l $glo1, ...)  
 storew 0, %i  
@l1  
 %t5 =w loadw %i  
 %t4 =w csltw %t5, 8  
 jnz %t4, @l2, @l3  
@l2  
 %t8 =w mul 8, 4  
 %t12 =l loadl %b  
 %t13 =w loadw %i  
 %t14 =l extsw %t13  
 %t15 =l mul 4, %t14  
 %t11 =l add %t12, %t15  
 storew %t8, %t11  
 %t17 =w loadw %i  
 %t16 =w add %t17, 1  
 storew %t16, %i  
 jmp @l1  
@l3  
 ret 0  
}  
  
--- Output: size 344 ---  
@l0  
 rd\_in =   
@l1  
 rd\_in = @l0%i @l0%b @l0%t0 @l2%t8 @l2%t12 @l2%t13 @l2%t14 @l2%t15 @l2%t11 @l2%t17 @l2%t16 @l1%t5 @l1%t4   
@l2  
 rd\_in = @l1%t5 @l1%t4 @l0%i @l0%b @l0%t0 @l2%t8 @l2%t12 @l2%t13 @l2%t14 @l2%t15 @l2%t11 @l2%t17 @l2%t16   
@l3  
 rd\_in = @l1%t5 @l1%t4 @l0%i @l0%b @l0%t0 @l2%t8 @l2%t12 @l2%t13 @l2%t14 @l2%t15 @l2%t11 @l2%t17 @l2%t16   
  
--- Correct: size 344 ---  
@l0  
 rd\_in =  
  
@l1  
 rd\_in = @l0%i @l0%b @l0%t0 @l1%t5 @l1%t4 @l2%t8 @l2%t12 @l2%t13 @l2%t14 @l2%t15 @l2%t11 @l2%t17 @l2%t16  
  
@l2  
 rd\_in = @l0%i @l0%b @l0%t0 @l1%t5 @l1%t4 @l2%t8 @l2%t12 @l2%t13 @l2%t14 @l2%t15 @l2%t11 @l2%t17 @l2%t16  
  
@l3  
 rd\_in = @l0%i @l0%b @l0%t0 @l1%t5 @l1%t4 @l2%t8 @l2%t12 @l2%t13 @l2%t14 @l2%t15 @l2%t11 @l2%t17 @l2%t16  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=21655552, maxrss=3469312, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1802240, nvcsw=1, nivcsw=2 }

**2du**

**====== Test #1 =======**  
--- Input: size 180 ---  
function w $main() {  
@start  
 %x =w copy 5  
@loop  
 %x =w mul %x, %x  
 %cond =w csgew %x, 200  
 jnz %cond, @end, @loop  
@end  
 %t =w call $printf(l $fmt, w %x)  
 ret 0  
}  
  
--- Output: size 87 ---  
@start  
 def = %x   
 use =   
@loop  
 def = %x %cond   
 use = %x   
@end  
 def = %t   
 use = %x   
  
--- Correct: size 83 ---  
@start  
 def = %x  
 use =  
  
@loop  
 def = %x %cond  
 use = %x  
  
@end  
 def = %t  
 use = %x  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=21635072, maxrss=3301376, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #2 =======**  
--- Input: size 259 ---  
export function $sieve(w %n, l %prime) {  
@fill0.cond  
 %uuu =l alloc4 4  
 %cond1 =w csgtw %n, 0  
 jnz %cond1, @fill0.body, @fill2.header  
  
@fill0.body  
 storeb 0, %prime  
  
@fill0.exit  
 %n =w cast 2  
 %uuu =l alloc8 2  
 %uuu =l alloc16 1  
  
@fill2.header  
 ret  
}  
  
--- Output: size 151 ---  
@fill0.cond  
 def = %n %prime %uuu %cond1   
 use =   
@fill0.body  
 def =   
 use = %prime   
@fill0.exit  
 def = %n %uuu   
 use =   
@fill2.header  
 def =   
 use =   
  
--- Correct: size 193 ---  
@fill2.header def = use =  
  
@fill0.exit def = %uuu %n  
 use =  
  
@fill0.body def =  
 use = %prime  
  
@fill0.cond def = %cond1 %uuu %prime %n  
 use =  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=21635072, maxrss=3518464, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #3 =======**  
--- Input: size 1963 ---  
export function w $plot(w %t0, w %t1, w %t2) {  
@l0  
 %x =l alloc4 4  
 storew %t0, %x  
 %y =l alloc4 4  
 storew %t1, %y  
 %rnd =l alloc4 4  
 storew %t2, %rnd  
 %n =l alloc4 4  
 %fx =l alloc4 4  
 %fy =l alloc4 4  
 %zx =l alloc4 4  
 %zy =l alloc4 4  
 %nx =l alloc4 4  
 %ny =l alloc4 4  
 %W =l alloc4 4  
 %H =l alloc4 4  
 %col =l alloc8 8  
 %t7 =w loadw %x  
 %t9 =w loadw %W  
 %t8 =w div %t9, 2  
 %t6 =w sub %t7, %t8  
 %t5 =w mul %t6, 4000  
 %t12 =w loadw %W  
 %t4 =w div %t5, %t12  
 storew %t4, %fx  
 %t17 =w loadw %y  
 %t19 =w loadw %H  
 %t18 =w div %t19, 2  
 %t16 =w sub %t17, %t18  
 %t15 =w mul %t16, 4000  
 %t22 =w loadw %H  
 %t14 =w div %t15, %t22  
 storew %t14, %fy  
 %t24 =w loadw %fx  
 storew %t24, %zx  
 %t26 =w loadw %fy  
 storew %t26, %zy  
 storew 0, %n  
@l1  
 %t30 =w loadw %n  
 %t29 =w csltw %t30, 200  
 jnz %t29, @l2, @l3  
@l2  
 %t36 =w loadw %zx  
 %t37 =w loadw %zx  
 %t35 =w mul %t36, %t37  
 %t39 =w loadw %zy  
 %t40 =w loadw %zy  
 %t38 =w mul %t39, %t40  
 %t34 =w add %t35, %t38  
 %t32 =w csltw 4000000, %t34  
 jnz %t32, @l4, @l5  
@l4  
 jmp @l3  
@l5  
 %t46 =w loadw %zx  
 %t47 =w loadw %zx  
 %t45 =w mul %t46, %t47  
 %t44 =w div %t45, 1000  
 %t51 =w loadw %zy  
 %t52 =w loadw %zy  
 %t50 =w mul %t51, %t52  
 %t49 =w div %t50, 1000  
 %t43 =w sub %t44, %t49  
 %t54 =w loadw %fx  
 %t42 =w add %t43, %t54  
 storew %t42, %nx  
 %t59 =w loadw %zx  
 %t60 =w loadw %zy  
 %t58 =w mul %t59, %t60  
 %t57 =w div %t58, 500  
 %t62 =w loadw %fy  
 %t56 =w add %t57, %t62  
 storew %t56, %ny  
 %t64 =w loadw %nx  
 storew %t64, %zx  
 %t66 =w loadw %ny  
 storew %t66, %zy  
 %t68 =w loadw %n  
 %t67 =w add %t68, 1  
 storew %t67, %n  
 jmp @l1  
@l3  
 %t72 =l loadl %col  
 %t73 =w loadw %n  
 %t74 =l extsw %t73  
 %t75 =l mul 4, %t74  
 %t71 =l add %t72, %t75  
 %t70 =w loadw %t71  
 storew %t70, %n  
 %t77 =w loadw %rnd  
 %t79 =w loadw %n  
 %t80 =w loadw %n  
 %t76 =w call $SDL\_SetRenderDrawColor(w %t77, w 100, w %t79, w %t80, w 255, ...)  
 %t83 =w loadw %rnd  
 %t84 =w loadw %x  
 %t85 =w loadw %y  
 %t82 =w call $SDL\_RenderDrawPoint(w %t83, w %t84, w %t85, ...)  
 ret 0  
}  
  
  
--- Output: size 537 ---  
@l0  
 def = %t0 %t1 %t2 %x %y %rnd %n %fx %fy %zx %zy %nx %ny %W %H %col %t7 %t9 %t8 %t6 %t5 %t12 %t4 %t17 %t19 %t18 %t16 %t15 %t22 %t14 %t24 %t26   
 use =   
@l1  
 def = %t30 %t29   
 use = %n   
@l2  
 def = %t36 %t37 %t35 %t39 %t40 %t38 %t34 %t32   
 use = %zx %zy   
@l4  
 def =   
 use =   
@l5  
 def = %t46 %t47 %t45 %t44 %t51 %t52 %t50 %t49 %t43 %t54 %t42 %t59 %t60 %t58 %t57 %t62 %t56 %t64 %t66 %t68 %t67   
 use = %zx %zy %fx %nx %fy %ny %n   
@l3  
 def = %t72 %t73 %t74 %t75 %t71 %t70 %t77 %t79 %t80 %t76 %t83 %t84 %t85 %t82   
 use = %col %n %rnd %x %y   
  
--- Correct: size 531 ---  
@l0  
 def = %t26 %t24 %t14 %t22 %t15 %t16 %t18 %t19 %t17 %t4 %t12 %t5 %t6 %t8 %t9 %t7 %col %H %W %ny %nx %zy %zx %fy %fx %n %rnd %y %x %t2 %t1 %t0  
 use =  
  
@l1  
 def = %t29 %t30  
 use = %n  
  
@l2  
 def = %t32 %t34 %t38 %t40 %t39 %t35 %t37 %t36  
 use = %zy %zx  
  
@l4  
 def =  
 use =  
  
@l5  
 def = %t67 %t68 %t66 %t64 %t56 %t62 %t57 %t58 %t60 %t59 %t42 %t54 %t43 %t49 %t50 %t52 %t51 %t44 %t45 %t47 %t46  
 use = %n %zy %ny %zx %nx %fy %fx  
  
@l3  
 def = %t82 %t85 %t84 %t83 %t76 %t80 %t79 %t77 %t70 %t71 %t75 %t74 %t73 %t72  
 use = %y %x %rnd %n %col  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=21635072, maxrss=3518464, nvcsw=1, nivcsw=3 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #4 =======**  
--- Input: size 2101 ---  
export function w $main() {  
@l0  
 %c =l alloc4 4  
 %n =l alloc4 4  
 %x =l alloc4 4  
 %y =l alloc4 4  
 %e =l alloc8 8  
 %ie =l alloc8 8  
 %col =l alloc8 8  
 %W =l alloc4 4  
 %H =l alloc4 4  
 %rnd =l alloc4 4  
 %win =l alloc4 4  
 storew 800, %W  
 storew 800, %H  
 %t4 =w call $SDL\_Init(w 32, ...)  
 %t11 =w loadw %W  
 %t12 =w loadw %H  
 %t7 =w call $SDL\_CreateWindow(l $glo1, w 0, w 0, w %t11, w %t12, w 0, ...)  
 storew %t7, %win  
 %t16 =w loadw %win  
 %t17 =w sub 0, 1  
 %t15 =w call $SDL\_CreateRenderer(w %t16, w %t17, w 0, ...)  
 storew %t15, %rnd  
 %t22 =l loadl %e  
 storel %t22, %ie  
 storew 20, %c  
 storew 0, %n  
@l1  
 %t28 =w loadw %n  
 %t27 =w csltw %t28, 200  
 jnz %t27, @l2, @l3  
@l2  
 %t31 =w loadw %c  
 %t33 =l loadl %col  
 %t34 =w loadw %n  
 %t35 =l extsw %t34  
 %t36 =l mul 4, %t35  
 %t32 =l add %t33, %t36  
 storew %t31, %t32  
 %t39 =w loadw %c  
 %t43 =w loadw %c  
 %t41 =w sub 255, %t43  
 %t40 =w div %t41, 8  
 %t38 =w add %t39, %t40  
 storew %t38, %c  
 %t46 =w loadw %n  
 %t45 =w add %t46, 1  
 storew %t45, %n  
 jmp @l1  
@l3  
 %t50 =l loadl %col  
 %t51 =w loadw %n  
 %t52 =l extsw %t51  
 %t53 =l mul 4, %t52  
 %t49 =l add %t50, %t53  
 storew 30, %t49  
 %t55 =w loadw %rnd  
 %t54 =w call $SDL\_RenderClear(w %t55, ...)  
 storew 0, %x  
@l4  
 %t59 =w loadw %x  
 %t60 =w loadw %W  
 %t58 =w csltw %t59, %t60  
 jnz %t58, @l5, @l6  
@l5  
 storew 0, %y  
@l7  
 %t64 =w loadw %y  
 %t65 =w loadw %H  
 %t63 =w csltw %t64, %t65  
 jnz %t63, @l8, @l9  
@l8  
 %t67 =w loadw %x  
 %t68 =w loadw %y  
 %t66 =w call $plot(w %t67, w %t68, ...)  
 %t70 =w loadw %y  
 %t69 =w add %t70, 1  
 storew %t69, %y  
 jmp @l7  
@l9  
 %t72 =w loadw %x  
 %t71 =w add %t72, 1  
 storew %t71, %x  
 jmp @l4  
@l6  
 %t74 =w loadw %rnd  
 %t73 =w call $SDL\_RenderPresent(w %t74, ...)  
@l10  
 jnz 1, @l11, @l12  
@l11  
 %t77 =l loadl %e  
 %t76 =w call $SDL\_PollEvent(l %t77, ...)  
 jnz %t76, @l13, @l14  
@l13  
 %t81 =l loadl %ie  
 %t80 =l add %t81, 0  
 %t79 =w loadw %t80  
 %t78 =w ceqw %t79, 769  
 jnz %t78, @l16, @l17  
@l16  
 jmp @l12  
@l17  
@l14  
 jmp @l10  
@l12  
 %t85 =w loadw %rnd  
 %t84 =w call $SDL\_DestroyRenderer(w %t85, ...)  
 %t87 =w loadw %win  
 %t86 =w call $SDL\_DestroyWindow(w %t87, ...)  
 %t88 =w call $SDL\_Quit(...)  
 ret 0  
}  
  
--- Output: size 741 ---  
@l0  
 def = %c %n %x %y %e %ie %col %W %H %rnd %win %t4 %t11 %t12 %t7 %t16 %t17 %t15 %t22   
 use =   
@l1  
 def = %t28 %t27   
 use = %n   
@l2  
 def = %t31 %t33 %t34 %t35 %t36 %t32 %t39 %t43 %t41 %t40 %t38 %t46 %t45   
 use = %c %col %n   
@l3  
 def = %t50 %t51 %t52 %t53 %t49 %t55 %t54   
 use = %col %n %rnd %x   
@l4  
 def = %t59 %t60 %t58   
 use = %x %W   
@l5  
 def =   
 use = %y   
@l7  
 def = %t64 %t65 %t63   
 use = %y %H   
@l8  
 def = %t67 %t68 %t66 %t70 %t69   
 use = %x %y   
@l9  
 def = %t72 %t71   
 use = %x   
@l6  
 def = %t74 %t73   
 use = %rnd   
@l10  
 def =   
 use =   
@l11  
 def = %t77 %t76   
 use = %e   
@l13  
 def = %t81 %t80 %t79 %t78   
 use = %ie   
@l16  
 def =   
 use =   
@l17  
 def =   
 use =   
@l14  
 def =   
 use =   
@l12  
 def = %t85 %t84 %t87 %t86 %t88   
 use = %rnd %win   
  
--- Correct: size 724 ---  
@l0  
 def = %t22 %t15 %t17 %t16 %t7 %t12 %t11 %t4 %win %rnd %H %W %col %ie %e %y %x %n %c  
 use =  
  
@l1  
 def = %t27 %t28  
 use = %n  
  
@l2  
 def = %t45 %t46 %t38 %t40 %t41 %t43 %t39 %t32 %t36 %t35 %t34 %t33 %t31  
 use = %n %c %col  
  
@l3  
 def = %t54 %t55 %t49 %t53 %t52 %t51 %t50  
 use = %x %rnd %n %col  
  
@l4  
 def = %t58 %t60 %t59  
 use = %W %x  
  
@l5  
 def =  
 use = %y  
  
@l7  
 def = %t63 %t65 %t64  
 use = %H %y  
  
@l8  
 def = %t69 %t70 %t66 %t68 %t67  
 use = %y %x  
  
@l9  
 def = %t71 %t72  
 use = %x  
  
@l6  
 def = %t73 %t74  
 use = %rnd  
  
@l10  
 def =  
 use =  
  
@l11  
 def = %t76 %t77  
 use = %e  
  
@l13  
 def = %t78 %t79 %t80 %t81  
 use = %ie  
  
@l16  
 def =  
 use =  
  
@l17  
 def =  
 use =  
  
@l14  
 def =  
 use =  
  
@l12  
 def = %t88 %t86 %t87 %t84 %t85  
 use = %win %rnd  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=3, maxvsz=21635072, maxrss=3493888, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #5 =======**  
--- Input: size 1002 ---  
export function w $main() {  
@l0  
 %n =l alloc4 4  
 %t =l alloc4 4  
 %c =l alloc4 4  
 %p =l alloc4 4  
 storew 0, %c  
 storew 2, %n  
@l1  
 %t5 =w loadw %n  
 %t4 =w csltw %t5, 5000  
 jnz %t4, @l2, @l3  
@l2  
 storew 2, %t  
 storew 1, %p  
@l4  
 %t13 =w loadw %t  
 %t14 =w loadw %t  
 %t12 =w mul %t13, %t14  
 %t15 =w loadw %n  
 %t11 =w cslew %t12, %t15  
 jnz %t11, @l5, @l6  
@l5  
 %t18 =w loadw %n  
 %t19 =w loadw %t  
 %t17 =w rem %t18, %t19  
 %t16 =w ceqw %t17, 0  
 jnz %t16, @l7, @l8  
@l7  
 storew 0, %p  
@l8  
 %t24 =w loadw %t  
 %t23 =w add %t24, 1  
 storew %t23, %t  
 jmp @l4  
@l6  
 %t25 =w loadw %p  
 jnz %t25, @l10, @l11  
@l10  
 %t26 =w loadw %c  
 jnz %t26, @l16, @l14  
@l16  
 %t29 =w loadw %c  
 %t28 =w rem %t29, 10  
 %t27 =w ceqw %t28, 0  
 jnz %t27, @l13, @l14  
@l13  
 %t32 =w call $printf(l $glo1, ...)  
@l14  
 %t36 =w loadw %n  
 %t34 =w call $printf(l $glo2, w %t36, ...)  
 %t38 =w loadw %c  
 %t37 =w add %t38, 1  
 storew %t37, %c  
@l11  
 %t40 =w loadw %n  
 %t39 =w add %t40, 1  
 storew %t39, %n  
 jmp @l1  
@l3  
 %t41 =w call $printf(l $glo3, ...)  
 ret 0  
}  
  
--- Output: size 470 ---  
@l0  
 def = %n %t %c %p   
 use =   
@l1  
 def = %t5 %t4   
 use = %n   
@l2  
 def =   
 use = %t %p   
@l4  
 def = %t13 %t14 %t12 %t15 %t11   
 use = %t %n   
@l5  
 def = %t18 %t19 %t17 %t16   
 use = %n %t   
@l7  
 def =   
 use = %p   
@l8  
 def = %t24 %t23   
 use = %t   
@l6  
 def = %t25   
 use = %p   
@l10  
 def = %t26   
 use = %c   
@l16  
 def = %t29 %t28 %t27   
 use = %c   
@l13  
 def = %t32   
 use =   
@l14  
 def = %t36 %t34 %t38 %t37   
 use = %n %c   
@l11  
 def = %t40 %t39   
 use = %n   
@l3  
 def = %t41   
 use =   
  
--- Correct: size 456 ---  
@l0  
 def = %p %c %t %n  
 use =  
  
@l1  
 def = %t4 %t5  
 use = %n  
  
@l2  
 def =  
 use = %p %t  
  
@l4  
 def = %t11 %t15 %t12 %t14 %t13  
 use = %n %t  
  
@l5  
 def = %t16 %t17 %t19 %t18  
 use = %t %n  
  
@l7  
 def =  
 use = %p  
  
@l8  
 def = %t23 %t24  
 use = %t  
  
@l6  
 def = %t25  
 use = %p  
  
@l10  
 def = %t26  
 use = %c  
  
@l16  
 def = %t27 %t28 %t29  
 use = %c  
  
@l13  
 def = %t32  
 use =  
  
@l14  
 def = %t37 %t38 %t34 %t36  
 use = %c %n  
  
@l11  
 def = %t39 %t40  
 use = %n  
  
@l3  
 def = %t41  
 use =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=21635072, maxrss=3416064, nvcsw=1, nivcsw=3 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #6 =======**  
--- Input: size 897 ---  
export function w $print(w %t0, l %t1) {  
@l0  
 %Q =l alloc4 4  
 storew %t0, %Q  
 %t =l alloc8 8  
 storel %t1, %t  
 %x =l alloc4 4  
 %y =l alloc4 4  
 storew 0, %y  
@l1  
 %t5 =w loadw %y  
 %t6 =w loadw %Q  
 %t4 =w csltw %t5, %t6  
 jnz %t4, @l2, @l3  
@l2  
 storew 0, %x  
@l4  
 %t10 =w loadw %x  
 %t11 =w loadw %Q  
 %t9 =w csltw %t10, %t11  
 jnz %t9, @l5, @l6  
@l5  
 %t16 =l loadl %t  
 %t17 =w loadw %x  
 %t18 =l extsw %t17  
 %t19 =l mul 8, %t18  
 %t15 =l add %t16, %t19  
 %t14 =l loadl %t15  
 %t20 =w loadw %y  
 %t21 =l extsw %t20  
 %t22 =l mul 4, %t21  
 %t13 =l add %t14, %t22  
 %t12 =w loadw %t13  
 jnz %t12, @l7, @l8  
@l7  
 %t23 =w call $printf(l $glo1, ...)  
 jmp @l9  
@l8  
 %t25 =w call $printf(l $glo2, ...)  
@l9  
 %t28 =w loadw %x  
 %t27 =w add %t28, 1  
 storew %t27, %x  
 jmp @l4  
@l6  
 %t29 =w call $printf(l $glo3, ...)  
 %t32 =w loadw %y  
 %t31 =w add %t32, 1  
 storew %t31, %y  
 jmp @l1  
@l3  
 %t33 =w call $printf(l $glo4, ...)  
 ret 0  
}  
  
--- Output: size 371 ---  
@l0  
 def = %t0 %t1 %Q %t %x %y   
 use =   
@l1  
 def = %t5 %t6 %t4   
 use = %y %Q   
@l2  
 def =   
 use = %x   
@l4  
 def = %t10 %t11 %t9   
 use = %x %Q   
@l5  
 def = %t16 %t17 %t18 %t19 %t15 %t14 %t20 %t21 %t22 %t13 %t12   
 use = %t %x %y   
@l7  
 def = %t23   
 use =   
@l8  
 def = %t25   
 use =   
@l9  
 def = %t28 %t27   
 use = %x   
@l6  
 def = %t29 %t32 %t31   
 use = %y   
@l3  
 def = %t33   
 use =   
  
--- Correct: size 361 ---  
@l0  
 def = %y %x %t %Q %t1 %t0  
 use =  
  
@l1  
 def = %t4 %t6 %t5  
 use = %Q %y  
  
@l2  
 def =  
 use = %x  
  
@l4  
 def = %t9 %t11 %t10  
 use = %Q %x  
  
@l5  
 def = %t12 %t13 %t22 %t21 %t20 %t14 %t15 %t19 %t18 %t17 %t16  
 use = %y %x %t  
  
@l7  
 def = %t23  
 use =  
  
@l8  
 def = %t25  
 use =  
  
@l9  
 def = %t27 %t28  
 use = %x  
  
@l6  
 def = %t31 %t32 %t29  
 use = %y  
  
@l3  
 def = %t33  
 use =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=21635072, maxrss=3440640, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #7 =======**  
--- Input: size 3533 ---  
export function w $chk(w %t0, w %t1, l %t2, w %t3) {  
@l0  
 %x =l alloc4 4  
 storew %t0, %x  
 %y =l alloc4 4  
 storew %t1, %y  
 %t =l alloc8 8  
 storel %t2, %t  
 %Q =l alloc4 4  
 storew %t3, %Q  
 %i =l alloc4 4  
 %r =l alloc4 4  
 storew 0, %i  
 storew 0, %r  
@l1  
 %t8 =w loadw %i  
 %t9 =w loadw %Q  
 %t7 =w csltw %t8, %t9  
 jnz %t7, @l2, @l3  
@l2  
 %t12 =w loadw %r  
 %t17 =l loadl %t  
 %t18 =w loadw %x  
 %t19 =l extsw %t18  
 %t20 =l mul 8, %t19  
 %t16 =l add %t17, %t20  
 %t15 =l loadl %t16  
 %t21 =w loadw %i  
 %t22 =l extsw %t21  
 %t23 =l mul 4, %t22  
 %t14 =l add %t15, %t23  
 %t13 =w loadw %t14  
 %t11 =w add %t12, %t13  
 storew %t11, %r  
 %t26 =w loadw %r  
 %t31 =l loadl %t  
 %t32 =w loadw %i  
 %t33 =l extsw %t32  
 %t34 =l mul 8, %t33  
 %t30 =l add %t31, %t34  
 %t29 =l loadl %t30  
 %t35 =w loadw %y  
 %t36 =l extsw %t35  
 %t37 =l mul 4, %t36  
 %t28 =l add %t29, %t37  
 %t27 =w loadw %t28  
 %t25 =w add %t26, %t27  
 storew %t25, %r  
 %t41 =w loadw %x  
 %t42 =w loadw %i  
 %t40 =w add %t41, %t42  
 %t43 =w loadw %Q  
 %t39 =w csltw %t40, %t43  
 %t46 =w loadw %y  
 %t47 =w loadw %i  
 %t45 =w add %t46, %t47  
 %t48 =w loadw %Q  
 %t44 =w csltw %t45, %t48  
 %t38 =w and %t39, %t44  
 jnz %t38, @l4, @l5  
@l4  
 %t51 =w loadw %r  
 %t56 =l loadl %t  
 %t58 =w loadw %x  
 %t59 =w loadw %i  
 %t57 =w add %t58, %t59  
 %t60 =l extsw %t57  
 %t61 =l mul 8, %t60  
 %t55 =l add %t56, %t61  
 %t54 =l loadl %t55  
 %t63 =w loadw %y  
 %t64 =w loadw %i  
 %t62 =w add %t63, %t64  
 %t65 =l extsw %t62  
 %t66 =l mul 4, %t65  
 %t53 =l add %t54, %t66  
 %t52 =w loadw %t53  
 %t50 =w add %t51, %t52  
 storew %t50, %r  
@l5  
 %t70 =w loadw %x  
 %t71 =w loadw %i  
 %t69 =w add %t70, %t71  
 %t72 =w loadw %Q  
 %t68 =w csltw %t69, %t72  
 %t76 =w loadw %y  
 %t77 =w loadw %i  
 %t75 =w sub %t76, %t77  
 %t73 =w cslew 0, %t75  
 %t67 =w and %t68, %t73  
 jnz %t67, @l7, @l8  
@l7  
 %t80 =w loadw %r  
 %t85 =l loadl %t  
 %t87 =w loadw %x  
 %t88 =w loadw %i  
 %t86 =w add %t87, %t88  
 %t89 =l extsw %t86  
 %t90 =l mul 8, %t89  
 %t84 =l add %t85, %t90  
 %t83 =l loadl %t84  
 %t92 =w loadw %y  
 %t93 =w loadw %i  
 %t91 =w sub %t92, %t93  
 %t94 =l extsw %t91  
 %t95 =l mul 4, %t94  
 %t82 =l add %t83, %t95  
 %t81 =w loadw %t82  
 %t79 =w add %t80, %t81  
 storew %t79, %r  
@l8  
 %t100 =w loadw %x  
 %t101 =w loadw %i  
 %t99 =w sub %t100, %t101  
 %t97 =w cslew 0, %t99  
 %t104 =w loadw %y  
 %t105 =w loadw %i  
 %t103 =w add %t104, %t105  
 %t106 =w loadw %Q  
 %t102 =w csltw %t103, %t106  
 %t96 =w and %t97, %t102  
 jnz %t96, @l10, @l11  
@l10  
 %t109 =w loadw %r  
 %t114 =l loadl %t  
 %t116 =w loadw %x  
 %t117 =w loadw %i  
 %t115 =w sub %t116, %t117  
 %t118 =l extsw %t115  
 %t119 =l mul 8, %t118  
 %t113 =l add %t114, %t119  
 %t112 =l loadl %t113  
 %t121 =w loadw %y  
 %t122 =w loadw %i  
 %t120 =w add %t121, %t122  
 %t123 =l extsw %t120  
 %t124 =l mul 4, %t123  
 %t111 =l add %t112, %t124  
 %t110 =w loadw %t111  
 %t108 =w add %t109, %t110  
 storew %t108, %r  
@l11  
 %t129 =w loadw %x  
 %t130 =w loadw %i  
 %t128 =w sub %t129, %t130  
 %t126 =w cslew 0, %t128  
 %t134 =w loadw %y  
 %t135 =w loadw %i  
 %t133 =w sub %t134, %t135  
 %t131 =w cslew 0, %t133  
 %t125 =w and %t126, %t131  
 jnz %t125, @l13, @l14  
@l13  
 %t138 =w loadw %r  
 %t143 =l loadl %t  
 %t145 =w loadw %x  
 %t146 =w loadw %i  
 %t144 =w sub %t145, %t146  
 %t147 =l extsw %t144  
 %t148 =l mul 8, %t147  
 %t142 =l add %t143, %t148  
 %t141 =l loadl %t142  
 %t150 =w loadw %y  
 %t151 =w loadw %i  
 %t149 =w sub %t150, %t151  
 %t152 =l extsw %t149  
 %t153 =l mul 4, %t152  
 %t140 =l add %t141, %t153  
 %t139 =w loadw %t140  
 %t137 =w add %t138, %t139  
 storew %t137, %r  
@l14  
 %t155 =w loadw %i  
 %t154 =w add %t155, 1  
 storew %t154, %i  
 jmp @l1  
@l3  
 %t156 =w loadw %r  
 ret %t156  
}  
  
  
--- Output: size 1151 ---  
@l0  
 def = %t0 %t1 %t2 %t3 %x %y %t %Q %i %r   
 use =   
@l1  
 def = %t8 %t9 %t7   
 use = %i %Q   
@l2  
 def = %t12 %t17 %t18 %t19 %t20 %t16 %t15 %t21 %t22 %t23 %t14 %t13 %t11 %t26 %t31 %t32 %t33 %t34 %t30 %t29 %t35 %t36 %t37 %t28 %t27 %t25 %t41 %t42 %t40 %t43 %t39 %t46 %t47 %t45 %t48 %t44 %t38   
 use = %r %t %x %i %y %Q   
@l4  
 def = %t51 %t56 %t58 %t59 %t57 %t60 %t61 %t55 %t54 %t63 %t64 %t62 %t65 %t66 %t53 %t52 %t50   
 use = %r %t %x %i %y   
@l5  
 def = %t70 %t71 %t69 %t72 %t68 %t76 %t77 %t75 %t73 %t67   
 use = %x %i %Q %y   
@l7  
 def = %t80 %t85 %t87 %t88 %t86 %t89 %t90 %t84 %t83 %t92 %t93 %t91 %t94 %t95 %t82 %t81 %t79   
 use = %r %t %x %i %y   
@l8  
 def = %t100 %t101 %t99 %t97 %t104 %t105 %t103 %t106 %t102 %t96   
 use = %x %i %y %Q   
@l10  
 def = %t109 %t114 %t116 %t117 %t115 %t118 %t119 %t113 %t112 %t121 %t122 %t120 %t123 %t124 %t111 %t110 %t108   
 use = %r %t %x %i %y   
@l11  
 def = %t129 %t130 %t128 %t126 %t134 %t135 %t133 %t131 %t125   
 use = %x %i %y   
@l13  
 def = %t138 %t143 %t145 %t146 %t144 %t147 %t148 %t142 %t141 %t150 %t151 %t149 %t152 %t153 %t140 %t139 %t137   
 use = %r %t %x %i %y   
@l14  
 def = %t155 %t154   
 use = %i   
@l3  
 def = %t156   
 use = %r   
  
--- Correct: size 1139 ---  
@l0  
 def = %r %i %Q %t %y %x %t3 %t2 %t1 %t0  
 use =  
  
@l1  
 def = %t7 %t9 %t8  
 use = %Q %i  
  
@l2  
 def = %t38 %t44 %t48 %t45 %t47 %t46 %t39 %t43 %t40 %t42 %t41 %t25 %t27 %t28 %t37 %t36 %t35 %t29 %t30 %t34 %t33 %t32 %t31 %t26 %t11 %t13 %t14 %t23 %t22 %t21 %t15 %t16 %t20 %t19 %t18 %t17 %t12  
 use = %Q %i %y %x %r %t  
  
@l4  
 def = %t50 %t52 %t53 %t66 %t65 %t62 %t64 %t63 %t54 %t55 %t61 %t60 %t57 %t59 %t58 %t56 %t51  
 use = %r %i %y %x %t  
  
@l5  
 def = %t67 %t73 %t75 %t77 %t76 %t68 %t72 %t69 %t71 %t70  
 use = %i %y %Q %x  
  
@l7  
 def = %t79 %t81 %t82 %t95 %t94 %t91 %t93 %t92 %t83 %t84 %t90 %t89 %t86 %t88 %t87 %t85 %t80  
 use = %r %i %y %x %t  
  
@l8  
 def = %t96 %t102 %t106 %t103 %t105 %t104 %t97 %t99 %t101 %t100  
 use = %Q %i %y %x  
  
@l10  
 def = %t108 %t110 %t111 %t124 %t123 %t120 %t122 %t121 %t112 %t113 %t119 %t118 %t115 %t117 %t116 %t114 %t109  
 use = %r %i %y %x %t  
  
@l11  
 def = %t125 %t131 %t133 %t135 %t134 %t126 %t128 %t130 %t129  
 use = %i %y %x  
  
@l13  
 def = %t137 %t139 %t140 %t153 %t152 %t149 %t151 %t150 %t141 %t142 %t148 %t147 %t144 %t146 %t145 %t143 %t138  
 use = %r %i %y %x %t  
  
@l14  
 def = %t154 %t155  
 use = %i  
  
@l3  
 def = %t156  
 use = %r  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=3, maxvsz=21635072, maxrss=3481600, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #8 =======**  
--- Input: size 1274 ---  
export function w $go(w %t0, w %t1, l %t2, w %t3) {  
@l0  
 %y =l alloc4 4  
 storew %t0, %y  
 %Q =l alloc4 4  
 storew %t1, %Q  
 %t =l alloc8 8  
 storel %t2, %t  
 %N =l alloc4 4  
 storew %t3, %N  
 %x =l alloc4 4  
 %t5 =w loadw %y  
 %t6 =w loadw %Q  
 %t4 =w ceqw %t5, %t6  
 jnz %t4, @l1, @l2  
@l1  
 %t7 =w call $print(...)  
 %t9 =w loadw %N  
 %t8 =w add %t9, 1  
 storew %t8, %N  
 ret 0  
@l2  
 storew 0, %x  
@l4  
 %t14 =w loadw %x  
 %t15 =w loadw %Q  
 %t13 =w csltw %t14, %t15  
 jnz %t13, @l5, @l6  
@l5  
 %t18 =w loadw %x  
 %t19 =w loadw %y  
 %t17 =w call $chk(w %t18, w %t19, ...)  
 %t16 =w ceqw %t17, 0  
 jnz %t16, @l7, @l8  
@l7  
 %t25 =l loadl %t  
 %t26 =w loadw %x  
 %t27 =l extsw %t26  
 %t28 =l mul 8, %t27  
 %t24 =l add %t25, %t28  
 %t23 =l loadl %t24  
 %t29 =w loadw %y  
 %t30 =l extsw %t29  
 %t31 =l mul 4, %t30  
 %t22 =l add %t23, %t31  
 %t32 =w loadw %t22  
 %t21 =w add %t32, 1  
 storew %t21, %t22  
 %t35 =w loadw %y  
 %t34 =w add %t35, 1  
 %t33 =w call $go(w %t34, ...)  
 %t41 =l loadl %t  
 %t42 =w loadw %x  
 %t43 =l extsw %t42  
 %t44 =l mul 8, %t43  
 %t40 =l add %t41, %t44  
 %t39 =l loadl %t40  
 %t45 =w loadw %y  
 %t46 =l extsw %t45  
 %t47 =l mul 4, %t46  
 %t38 =l add %t39, %t47  
 %t48 =w loadw %t38  
 %t37 =w sub %t48, 1  
 storew %t37, %t38  
@l8  
 %t50 =w loadw %x  
 %t49 =w add %t50, 1  
 storew %t49, %x  
 jmp @l4  
@l6  
 ret 0  
}  
  
  
--- Output: size 425 ---  
@l0  
 def = %t0 %t1 %t2 %t3 %y %Q %t %N %x %t5 %t6 %t4   
 use =   
@l1  
 def = %t7 %t9 %t8   
 use = %N   
@l2  
 def =   
 use = %x   
@l4  
 def = %t14 %t15 %t13   
 use = %x %Q   
@l5  
 def = %t18 %t19 %t17 %t16   
 use = %x %y   
@l7  
 def = %t25 %t26 %t27 %t28 %t24 %t23 %t29 %t30 %t31 %t22 %t32 %t21 %t35 %t34 %t33 %t41 %t42 %t43 %t44 %t40 %t39 %t45 %t46 %t47 %t38 %t48 %t37   
 use = %t %x %y   
@l8  
 def = %t50 %t49   
 use = %x   
@l6  
 def =   
 use =   
  
--- Correct: size 417 ---  
@l0  
 def = %t4 %t6 %t5 %x %N %t %Q %y %t3 %t2 %t1 %t0  
 use =  
  
@l1  
 def = %t8 %t9 %t7  
 use = %N  
  
@l2  
 def =  
 use = %x  
  
@l4  
 def = %t13 %t15 %t14  
 use = %Q %x  
  
@l5  
 def = %t16 %t17 %t19 %t18  
 use = %y %x  
  
@l7  
 def = %t37 %t48 %t38 %t47 %t46 %t45 %t39 %t40 %t44 %t43 %t42 %t41 %t33 %t34 %t35 %t21 %t32 %t22 %t31 %t30 %t29 %t23 %t24 %t28 %t27 %t26 %t25  
 use = %y %x %t  
  
@l8  
 def = %t49 %t50  
 use = %x  
  
@l6  
 def =  
 use =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=21635072, maxrss=3559424, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #9 =======**  
--- Input: size 843 ---  
export function w $main(w %t0, l %t1, w %t2, w %t3) {  
@l0  
 %ac =l alloc4 4  
 storew %t0, %ac  
 %av =l alloc8 8  
 storel %t1, %av  
 %Q =l alloc4 4  
 storew %t2, %Q  
 %N =l alloc4 4  
 storew %t3, %N  
 %i =l alloc4 4  
 %t =l alloc8 8  
 storew 8, %Q  
 %t8 =w loadw %ac  
 %t6 =w cslew 2, %t8  
 jnz %t6, @l1, @l2  
@l1  
 %t13 =l loadl %av  
 %t12 =l add %t13, 8  
 %t11 =l loadl %t12  
 %t10 =w call $atoi(l %t11, ...)  
 storew %t10, %Q  
@l2  
 storew 0, %i  
@l4  
 %t18 =w loadw %i  
 %t19 =w loadw %Q  
 %t17 =w csltw %t18, %t19  
 jnz %t17, @l5, @l6  
@l5  
 %t22 =w loadw %Q  
 %t21 =w mul %t22, 4  
 %t25 =l loadl %t  
 %t26 =w loadw %i  
 %t27 =l extsw %t26  
 %t28 =l mul 4, %t27  
 %t24 =l add %t25, %t28  
 storew %t21, %t24  
 %t30 =w loadw %i  
 %t29 =w add %t30, 1  
 storew %t29, %i  
 jmp @l4  
@l6  
 %t31 =w call $go(w 0, ...)  
 %t35 =w loadw %N  
 %t33 =w call $printf(l $glo1, w %t35, ...)  
 ret 0  
}  
  
--- Output: size 287 ---  
@l0  
 def = %t0 %t1 %t2 %t3 %ac %av %Q %N %i %t %t8 %t6   
 use =   
@l1  
 def = %t13 %t12 %t11 %t10   
 use = %av %Q   
@l2  
 def =   
 use = %i   
@l4  
 def = %t18 %t19 %t17   
 use = %i %Q   
@l5  
 def = %t22 %t21 %t25 %t26 %t27 %t28 %t24 %t30 %t29   
 use = %Q %t %i   
@l6  
 def = %t31 %t35 %t33   
 use = %N   
  
--- Correct: size 281 ---  
@l0  
 def = %t6 %t8 %t %i %N %Q %av %ac %t3 %t2 %t1 %t0  
 use =  
  
@l1  
 def = %t10 %t11 %t12 %t13  
 use = %Q %av  
  
@l2  
 def =  
 use = %i  
  
@l4  
 def = %t17 %t19 %t18  
 use = %Q %i  
  
@l5  
 def = %t29 %t30 %t24 %t28 %t27 %t26 %t25 %t21 %t22  
 use = %i %t %Q  
  
@l6  
 def = %t33 %t35 %t31  
 use = %N  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=21635072, maxrss=3420160, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #10 =======**  
--- Input: size 1324 ---  
export function w $main() {  
@l0  
 %n =l alloc4 4  
 %nv =l alloc4 4  
 %c =l alloc4 4  
 %cmax =l alloc4 4  
 %mem =l alloc8 8  
 storew 0, %cmax  
 storew 1, %nv  
@l1  
 %t5 =w loadw %nv  
 %t4 =w csltw %t5, 10  
 jnz %t4, @l2, @l3  
@l2  
 %t8 =w loadw %nv  
 storew %t8, %n  
 storew 0, %c  
@l4  
 %t12 =w loadw %n  
 %t11 =w cnew %t12, 1  
 jnz %t11, @l5, @l6  
@l5  
 %t15 =w loadw %n  
 %t16 =w loadw %nv  
 %t14 =w csltw %t15, %t16  
 jnz %t14, @l7, @l8  
@l7  
 %t19 =w loadw %c  
 %t22 =l loadl %mem  
 %t23 =w loadw %n  
 %t24 =l extsw %t23  
 %t25 =l mul 4, %t24  
 %t21 =l add %t22, %t25  
 %t20 =w loadw %t21  
 %t18 =w add %t19, %t20  
 storew %t18, %c  
 jmp @l6  
@l8  
 %t27 =w loadw %n  
 %t26 =w and %t27, 1  
 jnz %t26, @l10, @l11  
@l10  
 %t33 =w loadw %n  
 %t31 =w mul 3, %t33  
 %t30 =w add %t31, 1  
 storew %t30, %n  
 jmp @l12  
@l11  
 %t37 =w loadw %n  
 %t36 =w div %t37, 2  
 storew %t36, %n  
@l12  
 %t40 =w loadw %c  
 %t39 =w add %t40, 1  
 storew %t39, %c  
 jmp @l4  
@l6  
 %t42 =w loadw %c  
 %t44 =l loadl %mem  
 %t45 =w loadw %nv  
 %t46 =l extsw %t45  
 %t47 =l mul 4, %t46  
 %t43 =l add %t44, %t47  
 storew %t42, %t43  
 %t49 =w loadw %cmax  
 %t50 =w loadw %c  
 %t48 =w csltw %t49, %t50  
 jnz %t48, @l13, @l14  
@l13  
 %t52 =w loadw %c  
 storew %t52, %cmax  
@l14  
 %t54 =w loadw %nv  
 %t53 =w add %t54, 1  
 storew %t53, %nv  
 jmp @l1  
@l3  
 %t57 =w loadw %cmax  
 %t55 =w call $printf(l $glo1, w %t57, ...)  
 ret 0  
}  
  
--- Output: size 582 ---  
@l0  
 def = %n %nv %c %cmax %mem   
 use =   
@l1  
 def = %t5 %t4   
 use = %nv   
@l2  
 def = %t8   
 use = %nv %n %c   
@l4  
 def = %t12 %t11   
 use = %n   
@l5  
 def = %t15 %t16 %t14   
 use = %n %nv   
@l7  
 def = %t19 %t22 %t23 %t24 %t25 %t21 %t20 %t18   
 use = %c %mem %n   
@l8  
 def = %t27 %t26   
 use = %n   
@l10  
 def = %t33 %t31 %t30   
 use = %n   
@l11  
 def = %t37 %t36   
 use = %n   
@l12  
 def = %t40 %t39   
 use = %c   
@l6  
 def = %t42 %t44 %t45 %t46 %t47 %t43 %t49 %t50 %t48   
 use = %c %mem %nv %cmax   
@l13  
 def = %t52   
 use = %c %cmax   
@l14  
 def = %t54 %t53   
 use = %nv   
@l3  
 def = %t57 %t55   
 use = %cmax   
  
--- Correct: size 568 ---  
@l0  
 def = %mem %cmax %c %nv %n  
 use =  
  
@l1  
 def = %t4 %t5  
 use = %nv  
  
@l2  
 def = %t8  
 use = %c %n %nv  
  
@l4  
 def = %t11 %t12  
 use = %n  
  
@l5  
 def = %t14 %t16 %t15  
 use = %nv %n  
  
@l7  
 def = %t18 %t20 %t21 %t25 %t24 %t23 %t22 %t19  
 use = %c %n %mem  
  
@l8  
 def = %t26 %t27  
 use = %n  
  
@l10  
 def = %t30 %t31 %t33  
 use = %n  
  
@l11  
 def = %t36 %t37  
 use = %n  
  
@l12  
 def = %t39 %t40  
 use = %c  
  
@l6  
 def = %t48 %t50 %t49 %t43 %t47 %t46 %t45 %t44 %t42  
 use = %c %cmax %nv %mem  
  
@l13  
 def = %t52  
 use = %cmax %c  
  
@l14  
 def = %t53 %t54  
 use = %nv  
  
@l3  
 def = %t55 %t57  
 use = %cmax  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=21635072, maxrss=3489792, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=1, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #11 =======**  
--- Input: size 1359 ---  
export function w $main() {  
@l0  
 %i =l alloc4 4  
 %a =l alloc4 4  
 %b =l alloc4 4  
 %c =l alloc4 4  
 %d =l alloc4 4  
 storew 1, %a  
@l1  
 %t3 =w loadw %a  
 %t2 =w csltw %t3, 1000  
 jnz %t2, @l2, @l3  
@l2  
 %t7 =w loadw %a  
 %t6 =w add %t7, 1  
 storew %t6, %b  
@l4  
 %t10 =w loadw %b  
 %t9 =w csltw %t10, 1000  
 jnz %t9, @l5, @l6  
@l5  
 %t15 =w loadw %a  
 %t16 =w loadw %a  
 %t14 =w mul %t15, %t16  
 %t18 =w loadw %b  
 %t19 =w loadw %b  
 %t17 =w mul %t18, %t19  
 %t13 =w add %t14, %t17  
 storew %t13, %d  
 storew 0, %i  
@l7  
 %t23 =w loadw %i  
 %t22 =w csltw %t23, 1000  
 jnz %t22, @l8, @l9  
@l8  
 %t27 =w loadw %i  
 %t28 =w loadw %i  
 %t26 =w mul %t27, %t28  
 %t29 =w loadw %d  
 %t25 =w ceqw %t26, %t29  
 jnz %t25, @l10, @l11  
@l10  
 %t31 =w loadw %i  
 storew %t31, %c  
 %t33 =w loadw %b  
 %t34 =w loadw %c  
 %t32 =w csltw %t33, %t34  
 jnz %t32, @l16, @l14  
@l16  
 %t38 =w loadw %a  
 %t39 =w loadw %b  
 %t37 =w add %t38, %t39  
 %t40 =w loadw %c  
 %t36 =w add %t37, %t40  
 %t35 =w ceqw %t36, 1000  
 jnz %t35, @l13, @l14  
@l13  
 %t46 =w loadw %a  
 %t47 =w loadw %b  
 %t45 =w mul %t46, %t47  
 %t48 =w loadw %c  
 %t44 =w mul %t45, %t48  
 %t42 =w call $printf(l $glo1, w %t44, ...)  
 ret 0  
@l14  
 jmp @l9  
@l11  
 %t51 =w loadw %i  
 %t50 =w add %t51, 1  
 storew %t50, %i  
 jmp @l7  
@l9  
 %t53 =w loadw %b  
 %t52 =w add %t53, 1  
 storew %t52, %b  
 jmp @l4  
@l6  
 %t55 =w loadw %a  
 %t54 =w add %t55, 1  
 storew %t54, %a  
 jmp @l1  
@l3  
 ret 0  
}  
  
--- Output: size 594 ---  
@l0  
 def = %i %a %b %c %d   
 use =   
@l1  
 def = %t3 %t2   
 use = %a   
@l2  
 def = %t7 %t6   
 use = %a %b   
@l4  
 def = %t10 %t9   
 use = %b   
@l5  
 def = %t15 %t16 %t14 %t18 %t19 %t17 %t13   
 use = %a %b %d %i   
@l7  
 def = %t23 %t22   
 use = %i   
@l8  
 def = %t27 %t28 %t26 %t29 %t25   
 use = %i %d   
@l10  
 def = %t31 %t33 %t34 %t32   
 use = %i %c %b   
@l16  
 def = %t38 %t39 %t37 %t40 %t36 %t35   
 use = %a %b %c   
@l13  
 def = %t46 %t47 %t45 %t48 %t44 %t42   
 use = %a %b %c   
@l14  
 def =   
 use =   
@l11  
 def = %t51 %t50   
 use = %i   
@l9  
 def = %t53 %t52   
 use = %b   
@l6  
 def = %t55 %t54   
 use = %a   
@l3  
 def =   
 use =   
  
--- Correct: size 579 ---  
@l0  
 def = %d %c %b %a %i  
 use =  
  
@l1  
 def = %t2 %t3  
 use = %a  
  
@l2  
 def = %t6 %t7  
 use = %b %a  
  
@l4  
 def = %t9 %t10  
 use = %b  
  
@l5  
 def = %t13 %t17 %t19 %t18 %t14 %t16 %t15  
 use = %i %d %b %a  
  
@l7  
 def = %t22 %t23  
 use = %i  
  
@l8  
 def = %t25 %t29 %t26 %t28 %t27  
 use = %d %i  
  
@l10  
 def = %t32 %t34 %t33 %t31  
 use = %c %b %i  
  
@l16  
 def = %t35 %t36 %t40 %t37 %t39 %t38  
 use = %c %b %a  
  
@l13  
 def = %t42 %t44 %t48 %t45 %t47 %t46  
 use = %c %b %a  
  
@l14  
 def =  
 use =  
  
@l11  
 def = %t50 %t51  
 use = %i  
  
@l9  
 def = %t52 %t53  
 use = %b  
  
@l6  
 def = %t54 %t55  
 use = %a  
  
@l3  
 def =  
 use =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=5, maxvsz=21635072, maxrss=3411968, nvcsw=1, nivcsw=3 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #12 =======**  
--- Input: size 726 ---  
export function w $board() {  
@l0  
 %x =l alloc4 4  
 %y =l alloc4 4  
 %b =l alloc8 8  
 storew 0, %y  
@l1  
 %t3 =w loadw %y  
 %t2 =w csltw %t3, 8  
 jnz %t2, @l2, @l3  
@l2  
 storew 0, %x  
@l4  
 %t8 =w loadw %x  
 %t7 =w csltw %t8, 8  
 jnz %t7, @l5, @l6  
@l5  
 %t16 =l loadl %b  
 %t17 =w loadw %x  
 %t18 =l extsw %t17  
 %t19 =l mul 8, %t18  
 %t15 =l add %t16, %t19  
 %t14 =l loadl %t15  
 %t20 =w loadw %y  
 %t21 =l extsw %t20  
 %t22 =l mul 4, %t21  
 %t13 =l add %t14, %t22  
 %t12 =w loadw %t13  
 %t10 =w call $printf(l $glo1, w %t12, ...)  
 %t24 =w loadw %x  
 %t23 =w add %t24, 1  
 storew %t23, %x  
 jmp @l4  
@l6  
 %t25 =w call $printf(l $glo2, ...)  
 %t28 =w loadw %y  
 %t27 =w add %t28, 1  
 storew %t27, %y  
 jmp @l1  
@l3  
 %t29 =w call $printf(l $glo3, ...)  
 ret 0  
}  
  
--- Output: size 276 ---  
@l0  
 def = %x %y %b   
 use =   
@l1  
 def = %t3 %t2   
 use = %y   
@l2  
 def =   
 use = %x   
@l4  
 def = %t8 %t7   
 use = %x   
@l5  
 def = %t16 %t17 %t18 %t19 %t15 %t14 %t20 %t21 %t22 %t13 %t12 %t10 %t24 %t23   
 use = %b %x %y   
@l6  
 def = %t25 %t28 %t27   
 use = %y   
@l3  
 def = %t29   
 use =   
  
--- Correct: size 269 ---  
@l0  
 def = %b %y %x  
 use =  
  
@l1  
 def = %t2 %t3  
 use = %y  
  
@l2  
 def =  
 use = %x  
  
@l4  
 def = %t7 %t8  
 use = %x  
  
@l5  
 def = %t23 %t24 %t10 %t12 %t13 %t22 %t21 %t20 %t14 %t15 %t19 %t18 %t17 %t16  
 use = %x %y %b  
  
@l6  
 def = %t27 %t28 %t25  
 use = %y  
  
@l3  
 def = %t29  
 use =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=5, maxvsz=21635072, maxrss=3477504, nvcsw=1, nivcsw=3 }  
checker: { utime=0, stime=0, ptime=0, rtime=3, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #13 =======**  
--- Input: size 641 ---  
export function w $chk(w %t0, w %t1) {  
@l0  
 %x =l alloc4 4  
 storew %t0, %x  
 %y =l alloc4 4  
 storew %t1, %y  
 %b =l alloc8 8  
 %t3 =w loadw %x  
 %t2 =w csltw %t3, 0  
 jnz %t2, @l1, @l6  
@l6  
 %t7 =w loadw %x  
 %t5 =w csltw 7, %t7  
 jnz %t5, @l1, @l5  
@l5  
 %t9 =w loadw %y  
 %t8 =w csltw %t9, 0  
 jnz %t8, @l1, @l4  
@l4  
 %t13 =w loadw %y  
 %t11 =w csltw 7, %t13  
 jnz %t11, @l1, @l2  
@l1  
 ret 0  
@l2  
 %t20 =l loadl %b  
 %t21 =w loadw %x  
 %t22 =l extsw %t21  
 %t23 =l mul 8, %t22  
 %t19 =l add %t20, %t23  
 %t18 =l loadl %t19  
 %t24 =w loadw %y  
 %t25 =l extsw %t24  
 %t26 =l mul 4, %t25  
 %t17 =l add %t18, %t26  
 %t16 =w loadw %t17  
 %t15 =w ceqw %t16, 0  
 ret %t15  
}  
  
  
--- Output: size 249 ---  
@l0  
 def = %t0 %t1 %x %y %b %t3 %t2   
 use =   
@l6  
 def = %t7 %t5   
 use = %x   
@l5  
 def = %t9 %t8   
 use = %y   
@l4  
 def = %t13 %t11   
 use = %y   
@l1  
 def =   
 use =   
@l2  
 def = %t20 %t21 %t22 %t23 %t19 %t18 %t24 %t25 %t26 %t17 %t16 %t15   
 use = %b %x %y   
  
--- Correct: size 243 ---  
@l0  
 def = %t2 %t3 %b %y %x %t1 %t0  
 use =  
  
@l6  
 def = %t5 %t7  
 use = %x  
  
@l5  
 def = %t8 %t9  
 use = %y  
  
@l4  
 def = %t11 %t13  
 use = %y  
  
@l1  
 def =  
 use =  
  
@l2  
 def = %t15 %t16 %t17 %t26 %t25 %t24 %t18 %t19 %t23 %t22 %t21 %t20  
 use = %y %x %b  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=6, maxvsz=34512896, maxrss=3407872, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #14 =======**  
--- Input: size 2185 ---  
export function w $go(w %t0, w %t1, w %t2) {  
@l0  
 %k =l alloc4 4  
 storew %t0, %k  
 %x =l alloc4 4  
 storew %t1, %x  
 %y =l alloc4 4  
 storew %t2, %y  
 %i =l alloc4 4  
 %j =l alloc4 4  
 %b =l alloc8 8  
 %N =l alloc4 4  
 %t4 =w loadw %k  
 %t8 =l loadl %b  
 %t9 =w loadw %x  
 %t10 =l extsw %t9  
 %t11 =l mul 8, %t10  
 %t7 =l add %t8, %t11  
 %t6 =l loadl %t7  
 %t12 =w loadw %y  
 %t13 =l extsw %t12  
 %t14 =l mul 4, %t13  
 %t5 =l add %t6, %t14  
 storew %t4, %t5  
 %t16 =w loadw %k  
 %t15 =w ceqw %t16, 64  
 jnz %t15, @l1, @l2  
@l1  
 %t19 =w loadw %x  
 %t18 =w cnew %t19, 2  
 jnz %t18, @l8, @l5  
@l8  
 %t22 =w loadw %y  
 %t21 =w cnew %t22, 0  
 jnz %t21, @l7, @l5  
@l7  
 %t28 =w loadw %x  
 %t27 =w sub %t28, 2  
 %t26 =w call $abs(w %t27, ...)  
 %t31 =w loadw %y  
 %t30 =w call $abs(w %t31, ...)  
 %t25 =w add %t26, %t30  
 %t24 =w ceqw %t25, 3  
 jnz %t24, @l4, @l5  
@l4  
 %t33 =w call $board(...)  
 %t35 =w loadw %N  
 %t34 =w add %t35, 1  
 storew %t34, %N  
 %t37 =w loadw %N  
 %t36 =w ceqw %t37, 10  
 jnz %t36, @l9, @l10  
@l9  
 %t39 =w call $exit(w 0, ...)  
@l10  
@l5  
 jmp @l3  
@l2  
 %t42 =w sub 0, 2  
 storew %t42, %i  
@l12  
 %t46 =w loadw %i  
 %t45 =w cslew %t46, 2  
 jnz %t45, @l13, @l14  
@l13  
 %t49 =w sub 0, 2  
 storew %t49, %j  
@l15  
 %t53 =w loadw %j  
 %t52 =w cslew %t53, 2  
 jnz %t52, @l16, @l17  
@l16  
 %t58 =w loadw %i  
 %t57 =w call $abs(w %t58, ...)  
 %t60 =w loadw %j  
 %t59 =w call $abs(w %t60, ...)  
 %t56 =w add %t57, %t59  
 %t55 =w ceqw %t56, 3  
 jnz %t55, @l21, @l19  
@l21  
 %t64 =w loadw %x  
 %t65 =w loadw %i  
 %t63 =w add %t64, %t65  
 %t67 =w loadw %y  
 %t68 =w loadw %j  
 %t66 =w add %t67, %t68  
 %t62 =w call $chk(w %t63, w %t66, ...)  
 jnz %t62, @l18, @l19  
@l18  
 %t71 =w loadw %k  
 %t70 =w add %t71, 1  
 %t74 =w loadw %x  
 %t75 =w loadw %i  
 %t73 =w add %t74, %t75  
 %t77 =w loadw %y  
 %t78 =w loadw %j  
 %t76 =w add %t77, %t78  
 %t69 =w call $go(w %t70, w %t73, w %t76, ...)  
@l19  
 %t80 =w loadw %j  
 %t79 =w add %t80, 1  
 storew %t79, %j  
 jmp @l15  
@l17  
 %t82 =w loadw %i  
 %t81 =w add %t82, 1  
 storew %t81, %i  
 jmp @l12  
@l14  
@l3  
 %t88 =l loadl %b  
 %t89 =w loadw %x  
 %t90 =l extsw %t89  
 %t91 =l mul 8, %t90  
 %t87 =l add %t88, %t91  
 %t86 =l loadl %t87  
 %t92 =w loadw %y  
 %t93 =l extsw %t92  
 %t94 =l mul 4, %t93  
 %t85 =l add %t86, %t94  
 storew 0, %t85  
 ret 0  
}  
  
  
--- Output: size 852 ---  
@l0  
 def = %t0 %t1 %t2 %k %x %y %i %j %b %N %t4 %t8 %t9 %t10 %t11 %t7 %t6 %t12 %t13 %t14 %t5 %t16 %t15   
 use =   
@l1  
 def = %t19 %t18   
 use = %x   
@l8  
 def = %t22 %t21   
 use = %y   
@l7  
 def = %t28 %t27 %t26 %t31 %t30 %t25 %t24   
 use = %x %y   
@l4  
 def = %t33 %t35 %t34 %t37 %t36   
 use = %N   
@l9  
 def = %t39   
 use =   
@l10  
 def =   
 use =   
@l5  
 def =   
 use =   
@l2  
 def = %t42   
 use = %i   
@l12  
 def = %t46 %t45   
 use = %i   
@l13  
 def = %t49   
 use = %j   
@l15  
 def = %t53 %t52   
 use = %j   
@l16  
 def = %t58 %t57 %t60 %t59 %t56 %t55   
 use = %i %j   
@l21  
 def = %t64 %t65 %t63 %t67 %t68 %t66 %t62   
 use = %x %i %y %j   
@l18  
 def = %t71 %t70 %t74 %t75 %t73 %t77 %t78 %t76 %t69   
 use = %k %x %i %y %j   
@l19  
 def = %t80 %t79   
 use = %j   
@l17  
 def = %t82 %t81   
 use = %i   
@l14  
 def =   
 use =   
@l3  
 def = %t88 %t89 %t90 %t91 %t87 %t86 %t92 %t93 %t94 %t85   
 use = %b %x %y   
  
--- Correct: size 833 ---  
@l0  
 def = %t15 %t16 %t5 %t14 %t13 %t12 %t6 %t7 %t11 %t10 %t9 %t8 %t4 %N %b %j %i %y %x %k %t2 %t1 %t0  
 use =  
  
@l1  
 def = %t18 %t19  
 use = %x  
  
@l8  
 def = %t21 %t22  
 use = %y  
  
@l7  
 def = %t24 %t25 %t30 %t31 %t26 %t27 %t28  
 use = %y %x  
  
@l4  
 def = %t36 %t37 %t34 %t35 %t33  
 use = %N  
  
@l9  
 def = %t39  
 use =  
  
@l10  
 def =  
 use =  
  
@l5  
 def =  
 use =  
  
@l2  
 def = %t42  
 use = %i  
  
@l12  
 def = %t45 %t46  
 use = %i  
  
@l13  
 def = %t49  
 use = %j  
  
@l15  
 def = %t52 %t53  
 use = %j  
  
@l16  
 def = %t55 %t56 %t59 %t60 %t57 %t58  
 use = %j %i  
  
@l21  
 def = %t62 %t66 %t68 %t67 %t63 %t65 %t64  
 use = %j %y %i %x  
  
@l18  
 def = %t69 %t76 %t78 %t77 %t73 %t75 %t74 %t70 %t71  
 use = %j %y %i %x %k  
  
@l19  
 def = %t79 %t80  
 use = %j  
  
@l17  
 def = %t81 %t82  
 use = %i  
  
@l14  
 def =  
 use =  
  
@l3  
 def = %t85 %t94 %t93 %t92 %t86 %t87 %t91 %t90 %t89 %t88  
 use = %y %x %b  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=4, stime=0, ptime=4, rtime=5, maxvsz=21635072, maxrss=3506176, nvcsw=1, nivcsw=1 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #15 =======**  
--- Input: size 392 ---  
export function w $main() {  
@l0  
 %i =l alloc4 4  
 %b =l alloc8 8  
 %t0 =w call $printf(l $glo1, ...)  
 storew 0, %i  
@l1  
 %t5 =w loadw %i  
 %t4 =w csltw %t5, 8  
 jnz %t4, @l2, @l3  
@l2  
 %t8 =w mul 8, 4  
 %t12 =l loadl %b  
 %t13 =w loadw %i  
 %t14 =l extsw %t13  
 %t15 =l mul 4, %t14  
 %t11 =l add %t12, %t15  
 storew %t8, %t11  
 %t17 =w loadw %i  
 %t16 =w add %t17, 1  
 storew %t16, %i  
 jmp @l1  
@l3  
 ret 0  
}  
  
--- Output: size 146 ---  
@l0  
 def = %i %b %t0   
 use =   
@l1  
 def = %t5 %t4   
 use = %i   
@l2  
 def = %t8 %t12 %t13 %t14 %t15 %t11 %t17 %t16   
 use = %b %i   
@l3  
 def =   
 use =   
  
--- Correct: size 142 ---  
@l0  
 def = %t0 %b %i  
 use =  
  
@l1  
 def = %t4 %t5  
 use = %i  
  
@l2  
 def = %t16 %t17 %t11 %t15 %t14 %t13 %t12 %t8  
 use = %i %b  
  
@l3  
 def =  
 use =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=5, maxvsz=21635072, maxrss=3534848, nvcsw=1, nivcsw=3 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }

**2lv**

**====== Test #1 =======**  
--- Input: size 180 ---  
function w $main() {  
@start  
 %x =w copy 5  
@loop  
 %x =w mul %x, %x  
 %cond =w csgew %x, 200  
 jnz %cond, @end, @loop  
@end  
 %t =w call $printf(l $fmt, w %x)  
 ret 0  
}  
  
--- Output: size 57 ---  
@start  
 lv\_out = %x   
@loop  
 lv\_out = %x   
@end  
 lv\_out =   
  
--- Correct: size 56 ---  
@start  
 lv\_out = %x  
  
@loop  
 lv\_out = %x  
  
@end  
 lv\_out =  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=4, stime=0, ptime=4, rtime=5, maxvsz=0, maxrss=3551232, nvcsw=1, nivcsw=1 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=0, maxrss=1744896, nvcsw=1, nivcsw=1 }  
  
**====== Test #2 =======**  
--- Input: size 259 ---  
export function $sieve(w %n, l %prime) {  
@fill0.cond  
 %uuu =l alloc4 4  
 %cond1 =w csgtw %n, 0  
 jnz %cond1, @fill0.body, @fill2.header  
  
@fill0.body  
 storeb 0, %prime  
  
@fill0.exit  
 %n =w cast 2  
 %uuu =l alloc8 2  
 %uuu =l alloc16 1  
  
@fill2.header  
 ret  
}  
  
--- Output: size 101 ---  
@fill0.cond  
 lv\_out = %prime   
@fill0.body  
 lv\_out =   
@fill0.exit  
 lv\_out =   
@fill2.header  
 lv\_out =   
  
--- Correct: size 99 ---  
@fill2.header lv\_out =  
@fill0.exit lv\_out =  
@fill0.body lv\_out =  
@fill0.cond lv\_out = %prime  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=4, maxvsz=0, maxrss=3448832, nvcsw=1, nivcsw=1 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=0, maxrss=1744896, nvcsw=1, nivcsw=1 }  
  
**====== Test #3 =======**  
--- Input: size 1963 ---  
export function w $plot(w %t0, w %t1, w %t2) {  
@l0  
 %x =l alloc4 4  
 storew %t0, %x  
 %y =l alloc4 4  
 storew %t1, %y  
 %rnd =l alloc4 4  
 storew %t2, %rnd  
 %n =l alloc4 4  
 %fx =l alloc4 4  
 %fy =l alloc4 4  
 %zx =l alloc4 4  
 %zy =l alloc4 4  
 %nx =l alloc4 4  
 %ny =l alloc4 4  
 %W =l alloc4 4  
 %H =l alloc4 4  
 %col =l alloc8 8  
 %t7 =w loadw %x  
 %t9 =w loadw %W  
 %t8 =w div %t9, 2  
 %t6 =w sub %t7, %t8  
 %t5 =w mul %t6, 4000  
 %t12 =w loadw %W  
 %t4 =w div %t5, %t12  
 storew %t4, %fx  
 %t17 =w loadw %y  
 %t19 =w loadw %H  
 %t18 =w div %t19, 2  
 %t16 =w sub %t17, %t18  
 %t15 =w mul %t16, 4000  
 %t22 =w loadw %H  
 %t14 =w div %t15, %t22  
 storew %t14, %fy  
 %t24 =w loadw %fx  
 storew %t24, %zx  
 %t26 =w loadw %fy  
 storew %t26, %zy  
 storew 0, %n  
@l1  
 %t30 =w loadw %n  
 %t29 =w csltw %t30, 200  
 jnz %t29, @l2, @l3  
@l2  
 %t36 =w loadw %zx  
 %t37 =w loadw %zx  
 %t35 =w mul %t36, %t37  
 %t39 =w loadw %zy  
 %t40 =w loadw %zy  
 %t38 =w mul %t39, %t40  
 %t34 =w add %t35, %t38  
 %t32 =w csltw 4000000, %t34  
 jnz %t32, @l4, @l5  
@l4  
 jmp @l3  
@l5  
 %t46 =w loadw %zx  
 %t47 =w loadw %zx  
 %t45 =w mul %t46, %t47  
 %t44 =w div %t45, 1000  
 %t51 =w loadw %zy  
 %t52 =w loadw %zy  
 %t50 =w mul %t51, %t52  
 %t49 =w div %t50, 1000  
 %t43 =w sub %t44, %t49  
 %t54 =w loadw %fx  
 %t42 =w add %t43, %t54  
 storew %t42, %nx  
 %t59 =w loadw %zx  
 %t60 =w loadw %zy  
 %t58 =w mul %t59, %t60  
 %t57 =w div %t58, 500  
 %t62 =w loadw %fy  
 %t56 =w add %t57, %t62  
 storew %t56, %ny  
 %t64 =w loadw %nx  
 storew %t64, %zx  
 %t66 =w loadw %ny  
 storew %t66, %zy  
 %t68 =w loadw %n  
 %t67 =w add %t68, 1  
 storew %t67, %n  
 jmp @l1  
@l3  
 %t72 =l loadl %col  
 %t73 =w loadw %n  
 %t74 =l extsw %t73  
 %t75 =l mul 4, %t74  
 %t71 =l add %t72, %t75  
 %t70 =w loadw %t71  
 storew %t70, %n  
 %t77 =w loadw %rnd  
 %t79 =w loadw %n  
 %t80 =w loadw %n  
 %t76 =w call $SDL\_SetRenderDrawColor(w %t77, w 100, w %t79, w %t80, w 255, ...)  
 %t83 =w loadw %rnd  
 %t84 =w loadw %x  
 %t85 =w loadw %y  
 %t82 =w call $SDL\_RenderDrawPoint(w %t83, w %t84, w %t85, ...)  
 ret 0  
}  
  
  
--- Output: size 281 ---  
@l0  
 lv\_out = %n %zx %zy %fx %nx %fy %ny %col %rnd %x %y   
@l1  
 lv\_out = %zx %zy %fx %nx %fy %ny %n %col %rnd %x %y   
@l2  
 lv\_out = %col %n %rnd %x %y %zx %zy %fx %nx %fy %ny   
@l4  
 lv\_out = %col %n %rnd %x %y   
@l5  
 lv\_out = %n %zx %zy %fx %nx %fy %ny %col %rnd %x %y   
@l3  
 lv\_out =   
  
--- Correct: size 281 ---  
@l0  
 lv\_out = %n %zy %zx %y %x %rnd %col %ny %nx %fy %fx  
  
@l1  
 lv\_out = %zy %zx %y %x %rnd %n %col %ny %nx %fy %fx  
  
@l2  
 lv\_out = %n %zy %ny %zx %nx %fy %fx %y %x %rnd %col  
  
@l4  
 lv\_out = %y %x %rnd %n %col  
  
@l5  
 lv\_out = %n %zy %zx %y %x %rnd %col %ny %nx %fy %fx  
  
@l3  
 lv\_out =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=4, stime=0, ptime=4, rtime=7, maxvsz=34734080, maxrss=3633152, nvcsw=1, nivcsw=1 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=0, maxrss=1744896, nvcsw=1, nivcsw=1 }  
  
**====== Test #4 =======**  
--- Input: size 2101 ---  
export function w $main() {  
@l0  
 %c =l alloc4 4  
 %n =l alloc4 4  
 %x =l alloc4 4  
 %y =l alloc4 4  
 %e =l alloc8 8  
 %ie =l alloc8 8  
 %col =l alloc8 8  
 %W =l alloc4 4  
 %H =l alloc4 4  
 %rnd =l alloc4 4  
 %win =l alloc4 4  
 storew 800, %W  
 storew 800, %H  
 %t4 =w call $SDL\_Init(w 32, ...)  
 %t11 =w loadw %W  
 %t12 =w loadw %H  
 %t7 =w call $SDL\_CreateWindow(l $glo1, w 0, w 0, w %t11, w %t12, w 0, ...)  
 storew %t7, %win  
 %t16 =w loadw %win  
 %t17 =w sub 0, 1  
 %t15 =w call $SDL\_CreateRenderer(w %t16, w %t17, w 0, ...)  
 storew %t15, %rnd  
 %t22 =l loadl %e  
 storel %t22, %ie  
 storew 20, %c  
 storew 0, %n  
@l1  
 %t28 =w loadw %n  
 %t27 =w csltw %t28, 200  
 jnz %t27, @l2, @l3  
@l2  
 %t31 =w loadw %c  
 %t33 =l loadl %col  
 %t34 =w loadw %n  
 %t35 =l extsw %t34  
 %t36 =l mul 4, %t35  
 %t32 =l add %t33, %t36  
 storew %t31, %t32  
 %t39 =w loadw %c  
 %t43 =w loadw %c  
 %t41 =w sub 255, %t43  
 %t40 =w div %t41, 8  
 %t38 =w add %t39, %t40  
 storew %t38, %c  
 %t46 =w loadw %n  
 %t45 =w add %t46, 1  
 storew %t45, %n  
 jmp @l1  
@l3  
 %t50 =l loadl %col  
 %t51 =w loadw %n  
 %t52 =l extsw %t51  
 %t53 =l mul 4, %t52  
 %t49 =l add %t50, %t53  
 storew 30, %t49  
 %t55 =w loadw %rnd  
 %t54 =w call $SDL\_RenderClear(w %t55, ...)  
 storew 0, %x  
@l4  
 %t59 =w loadw %x  
 %t60 =w loadw %W  
 %t58 =w csltw %t59, %t60  
 jnz %t58, @l5, @l6  
@l5  
 storew 0, %y  
@l7  
 %t64 =w loadw %y  
 %t65 =w loadw %H  
 %t63 =w csltw %t64, %t65  
 jnz %t63, @l8, @l9  
@l8  
 %t67 =w loadw %x  
 %t68 =w loadw %y  
 %t66 =w call $plot(w %t67, w %t68, ...)  
 %t70 =w loadw %y  
 %t69 =w add %t70, 1  
 storew %t69, %y  
 jmp @l7  
@l9  
 %t72 =w loadw %x  
 %t71 =w add %t72, 1  
 storew %t71, %x  
 jmp @l4  
@l6  
 %t74 =w loadw %rnd  
 %t73 =w call $SDL\_RenderPresent(w %t74, ...)  
@l10  
 jnz 1, @l11, @l12  
@l11  
 %t77 =l loadl %e  
 %t76 =w call $SDL\_PollEvent(l %t77, ...)  
 jnz %t76, @l13, @l14  
@l13  
 %t81 =l loadl %ie  
 %t80 =l add %t81, 0  
 %t79 =w loadw %t80  
 %t78 =w ceqw %t79, 769  
 jnz %t78, @l16, @l17  
@l16  
 jmp @l12  
@l17  
@l14  
 jmp @l10  
@l12  
 %t85 =w loadw %rnd  
 %t84 =w call $SDL\_DestroyRenderer(w %t85, ...)  
 %t87 =w loadw %win  
 %t86 =w call $SDL\_DestroyWindow(w %t87, ...)  
 %t88 =w call $SDL\_Quit(...)  
 ret 0  
}  
  
--- Output: size 668 ---  
@l0  
 lv\_out = %n %c %col %rnd %x %W %y %H %e %ie %win   
@l1  
 lv\_out = %c %col %n %rnd %x %W %y %H %e %ie %win   
@l2  
 lv\_out = %n %c %col %rnd %x %W %y %H %e %ie %win   
@l3  
 lv\_out = %x %W %y %H %rnd %e %ie %win   
@l4  
 lv\_out = %y %H %x %W %rnd %e %ie %win   
@l5  
 lv\_out = %y %H %x %W %rnd %e %ie %win   
@l7  
 lv\_out = %x %y %H %W %rnd %e %ie %win   
@l8  
 lv\_out = %y %H %x %W %rnd %e %ie %win   
@l9  
 lv\_out = %x %W %y %H %rnd %e %ie %win   
@l6  
 lv\_out = %e %ie %rnd %win   
@l10  
 lv\_out = %e %ie %rnd %win   
@l11  
 lv\_out = %ie %rnd %win %e   
@l13  
 lv\_out = %rnd %win %e %ie   
@l16  
 lv\_out = %rnd %win   
@l17  
 lv\_out = %e %ie %rnd %win   
@l14  
 lv\_out = %e %ie %rnd %win   
@l12  
 lv\_out =   
  
--- Correct: size 668 ---  
@l0  
 lv\_out = %n %c %col %x %rnd %W %y %H %e %win %ie  
  
@l1  
 lv\_out = %n %c %col %x %rnd %W %y %H %e %win %ie  
  
@l2  
 lv\_out = %n %c %col %x %rnd %W %y %H %e %win %ie  
  
@l3  
 lv\_out = %W %x %y %rnd %H %e %win %ie  
  
@l4  
 lv\_out = %y %rnd %H %x %W %e %win %ie  
  
@l5  
 lv\_out = %H %y %x %W %rnd %e %win %ie  
  
@l7  
 lv\_out = %H %y %x %W %rnd %e %win %ie  
  
@l8  
 lv\_out = %H %y %x %W %rnd %e %win %ie  
  
@l9  
 lv\_out = %W %x %y %rnd %H %e %win %ie  
  
@l6  
 lv\_out = %e %win %rnd %ie  
  
@l10  
 lv\_out = %e %win %rnd %ie  
  
@l11  
 lv\_out = %ie %e %win %rnd  
  
@l13  
 lv\_out = %win %rnd %e %ie  
  
@l16  
 lv\_out = %win %rnd  
  
@l17  
 lv\_out = %e %win %rnd %ie  
  
@l14  
 lv\_out = %e %win %rnd %ie  
  
@l12  
 lv\_out =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=8, stime=0, ptime=8, rtime=12, maxvsz=34557952, maxrss=3518464, nvcsw=1, nivcsw=1 }  
checker: { utime=0, stime=0, ptime=0, rtime=3, maxvsz=0, maxrss=1744896, nvcsw=1, nivcsw=1 }  
  
**====== Test #5 =======**  
--- Input: size 1002 ---  
export function w $main() {  
@l0  
 %n =l alloc4 4  
 %t =l alloc4 4  
 %c =l alloc4 4  
 %p =l alloc4 4  
 storew 0, %c  
 storew 2, %n  
@l1  
 %t5 =w loadw %n  
 %t4 =w csltw %t5, 5000  
 jnz %t4, @l2, @l3  
@l2  
 storew 2, %t  
 storew 1, %p  
@l4  
 %t13 =w loadw %t  
 %t14 =w loadw %t  
 %t12 =w mul %t13, %t14  
 %t15 =w loadw %n  
 %t11 =w cslew %t12, %t15  
 jnz %t11, @l5, @l6  
@l5  
 %t18 =w loadw %n  
 %t19 =w loadw %t  
 %t17 =w rem %t18, %t19  
 %t16 =w ceqw %t17, 0  
 jnz %t16, @l7, @l8  
@l7  
 storew 0, %p  
@l8  
 %t24 =w loadw %t  
 %t23 =w add %t24, 1  
 storew %t23, %t  
 jmp @l4  
@l6  
 %t25 =w loadw %p  
 jnz %t25, @l10, @l11  
@l10  
 %t26 =w loadw %c  
 jnz %t26, @l16, @l14  
@l16  
 %t29 =w loadw %c  
 %t28 =w rem %t29, 10  
 %t27 =w ceqw %t28, 0  
 jnz %t27, @l13, @l14  
@l13  
 %t32 =w call $printf(l $glo1, ...)  
@l14  
 %t36 =w loadw %n  
 %t34 =w call $printf(l $glo2, w %t36, ...)  
 %t38 =w loadw %c  
 %t37 =w add %t38, 1  
 storew %t37, %c  
@l11  
 %t40 =w loadw %n  
 %t39 =w add %t40, 1  
 storew %t39, %n  
 jmp @l1  
@l3  
 %t41 =w call $printf(l $glo3, ...)  
 ret 0  
}  
  
--- Output: size 371 ---  
@l0  
 lv\_out = %n %t %p %c   
@l1  
 lv\_out = %t %p %n %c   
@l2  
 lv\_out = %t %n %p %c   
@l4  
 lv\_out = %n %t %p %c   
@l5  
 lv\_out = %p %t %n %c   
@l7  
 lv\_out = %t %n %p %c   
@l8  
 lv\_out = %t %n %p %c   
@l6  
 lv\_out = %c %n %t %p   
@l10  
 lv\_out = %c %n %t %p   
@l16  
 lv\_out = %n %c %t %p   
@l13  
 lv\_out = %n %c %t %p   
@l14  
 lv\_out = %n %t %p %c   
@l11  
 lv\_out = %n %t %p %c   
@l3  
 lv\_out =   
  
--- Correct: size 371 ---  
@l0  
 lv\_out = %n %p %t %c  
  
@l1  
 lv\_out = %p %t %n %c  
  
@l2  
 lv\_out = %n %t %p %c  
  
@l4  
 lv\_out = %t %n %p %c  
  
@l5  
 lv\_out = %p %n %t %c  
  
@l7  
 lv\_out = %n %t %p %c  
  
@l8  
 lv\_out = %n %t %p %c  
  
@l6  
 lv\_out = %c %n %p %t  
  
@l10  
 lv\_out = %c %n %p %t  
  
@l16  
 lv\_out = %c %n %p %t  
  
@l13  
 lv\_out = %c %n %p %t  
  
@l14  
 lv\_out = %n %p %t %c  
  
@l11  
 lv\_out = %n %p %t %c  
  
@l3  
 lv\_out =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=4, stime=0, ptime=4, rtime=8, maxvsz=34734080, maxrss=3543040, nvcsw=1, nivcsw=1 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=0, maxrss=1744896, nvcsw=1, nivcsw=1 }  
  
**====== Test #6 =======**  
--- Input: size 897 ---  
export function w $print(w %t0, l %t1) {  
@l0  
 %Q =l alloc4 4  
 storew %t0, %Q  
 %t =l alloc8 8  
 storel %t1, %t  
 %x =l alloc4 4  
 %y =l alloc4 4  
 storew 0, %y  
@l1  
 %t5 =w loadw %y  
 %t6 =w loadw %Q  
 %t4 =w csltw %t5, %t6  
 jnz %t4, @l2, @l3  
@l2  
 storew 0, %x  
@l4  
 %t10 =w loadw %x  
 %t11 =w loadw %Q  
 %t9 =w csltw %t10, %t11  
 jnz %t9, @l5, @l6  
@l5  
 %t16 =l loadl %t  
 %t17 =w loadw %x  
 %t18 =l extsw %t17  
 %t19 =l mul 8, %t18  
 %t15 =l add %t16, %t19  
 %t14 =l loadl %t15  
 %t20 =w loadw %y  
 %t21 =l extsw %t20  
 %t22 =l mul 4, %t21  
 %t13 =l add %t14, %t22  
 %t12 =w loadw %t13  
 jnz %t12, @l7, @l8  
@l7  
 %t23 =w call $printf(l $glo1, ...)  
 jmp @l9  
@l8  
 %t25 =w call $printf(l $glo2, ...)  
@l9  
 %t28 =w loadw %x  
 %t27 =w add %t28, 1  
 storew %t27, %x  
 jmp @l4  
@l6  
 %t29 =w call $printf(l $glo3, ...)  
 %t32 =w loadw %y  
 %t31 =w add %t32, 1  
 storew %t31, %y  
 jmp @l1  
@l3  
 %t33 =w call $printf(l $glo4, ...)  
 ret 0  
}  
  
--- Output: size 258 ---  
@l0  
 lv\_out = %y %Q %x %t   
@l1  
 lv\_out = %x %Q %t %y   
@l2  
 lv\_out = %x %Q %t %y   
@l4  
 lv\_out = %t %x %y %Q   
@l5  
 lv\_out = %x %Q %t %y   
@l7  
 lv\_out = %x %Q %t %y   
@l8  
 lv\_out = %x %Q %t %y   
@l9  
 lv\_out = %x %Q %t %y   
@l6  
 lv\_out = %y %Q %x %t   
@l3  
 lv\_out =   
  
--- Correct: size 258 ---  
@l0  
 lv\_out = %Q %y %x %t  
  
@l1  
 lv\_out = %x %Q %y %t  
  
@l2  
 lv\_out = %Q %x %y %t  
  
@l4  
 lv\_out = %y %x %t %Q  
  
@l5  
 lv\_out = %Q %x %y %t  
  
@l7  
 lv\_out = %Q %x %y %t  
  
@l8  
 lv\_out = %Q %x %y %t  
  
@l9  
 lv\_out = %Q %x %y %t  
  
@l6  
 lv\_out = %Q %y %x %t  
  
@l3  
 lv\_out =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=4, stime=0, ptime=4, rtime=6, maxvsz=34734080, maxrss=3514368, nvcsw=1, nivcsw=1 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=0, maxrss=1744896, nvcsw=1, nivcsw=1 }  
  
**====== Test #7 =======**  
--- Input: size 3533 ---  
export function w $chk(w %t0, w %t1, l %t2, w %t3) {  
@l0  
 %x =l alloc4 4  
 storew %t0, %x  
 %y =l alloc4 4  
 storew %t1, %y  
 %t =l alloc8 8  
 storel %t2, %t  
 %Q =l alloc4 4  
 storew %t3, %Q  
 %i =l alloc4 4  
 %r =l alloc4 4  
 storew 0, %i  
 storew 0, %r  
@l1  
 %t8 =w loadw %i  
 %t9 =w loadw %Q  
 %t7 =w csltw %t8, %t9  
 jnz %t7, @l2, @l3  
@l2  
 %t12 =w loadw %r  
 %t17 =l loadl %t  
 %t18 =w loadw %x  
 %t19 =l extsw %t18  
 %t20 =l mul 8, %t19  
 %t16 =l add %t17, %t20  
 %t15 =l loadl %t16  
 %t21 =w loadw %i  
 %t22 =l extsw %t21  
 %t23 =l mul 4, %t22  
 %t14 =l add %t15, %t23  
 %t13 =w loadw %t14  
 %t11 =w add %t12, %t13  
 storew %t11, %r  
 %t26 =w loadw %r  
 %t31 =l loadl %t  
 %t32 =w loadw %i  
 %t33 =l extsw %t32  
 %t34 =l mul 8, %t33  
 %t30 =l add %t31, %t34  
 %t29 =l loadl %t30  
 %t35 =w loadw %y  
 %t36 =l extsw %t35  
 %t37 =l mul 4, %t36  
 %t28 =l add %t29, %t37  
 %t27 =w loadw %t28  
 %t25 =w add %t26, %t27  
 storew %t25, %r  
 %t41 =w loadw %x  
 %t42 =w loadw %i  
 %t40 =w add %t41, %t42  
 %t43 =w loadw %Q  
 %t39 =w csltw %t40, %t43  
 %t46 =w loadw %y  
 %t47 =w loadw %i  
 %t45 =w add %t46, %t47  
 %t48 =w loadw %Q  
 %t44 =w csltw %t45, %t48  
 %t38 =w and %t39, %t44  
 jnz %t38, @l4, @l5  
@l4  
 %t51 =w loadw %r  
 %t56 =l loadl %t  
 %t58 =w loadw %x  
 %t59 =w loadw %i  
 %t57 =w add %t58, %t59  
 %t60 =l extsw %t57  
 %t61 =l mul 8, %t60  
 %t55 =l add %t56, %t61  
 %t54 =l loadl %t55  
 %t63 =w loadw %y  
 %t64 =w loadw %i  
 %t62 =w add %t63, %t64  
 %t65 =l extsw %t62  
 %t66 =l mul 4, %t65  
 %t53 =l add %t54, %t66  
 %t52 =w loadw %t53  
 %t50 =w add %t51, %t52  
 storew %t50, %r  
@l5  
 %t70 =w loadw %x  
 %t71 =w loadw %i  
 %t69 =w add %t70, %t71  
 %t72 =w loadw %Q  
 %t68 =w csltw %t69, %t72  
 %t76 =w loadw %y  
 %t77 =w loadw %i  
 %t75 =w sub %t76, %t77  
 %t73 =w cslew 0, %t75  
 %t67 =w and %t68, %t73  
 jnz %t67, @l7, @l8  
@l7  
 %t80 =w loadw %r  
 %t85 =l loadl %t  
 %t87 =w loadw %x  
 %t88 =w loadw %i  
 %t86 =w add %t87, %t88  
 %t89 =l extsw %t86  
 %t90 =l mul 8, %t89  
 %t84 =l add %t85, %t90  
 %t83 =l loadl %t84  
 %t92 =w loadw %y  
 %t93 =w loadw %i  
 %t91 =w sub %t92, %t93  
 %t94 =l extsw %t91  
 %t95 =l mul 4, %t94  
 %t82 =l add %t83, %t95  
 %t81 =w loadw %t82  
 %t79 =w add %t80, %t81  
 storew %t79, %r  
@l8  
 %t100 =w loadw %x  
 %t101 =w loadw %i  
 %t99 =w sub %t100, %t101  
 %t97 =w cslew 0, %t99  
 %t104 =w loadw %y  
 %t105 =w loadw %i  
 %t103 =w add %t104, %t105  
 %t106 =w loadw %Q  
 %t102 =w csltw %t103, %t106  
 %t96 =w and %t97, %t102  
 jnz %t96, @l10, @l11  
@l10  
 %t109 =w loadw %r  
 %t114 =l loadl %t  
 %t116 =w loadw %x  
 %t117 =w loadw %i  
 %t115 =w sub %t116, %t117  
 %t118 =l extsw %t115  
 %t119 =l mul 8, %t118  
 %t113 =l add %t114, %t119  
 %t112 =l loadl %t113  
 %t121 =w loadw %y  
 %t122 =w loadw %i  
 %t120 =w add %t121, %t122  
 %t123 =l extsw %t120  
 %t124 =l mul 4, %t123  
 %t111 =l add %t112, %t124  
 %t110 =w loadw %t111  
 %t108 =w add %t109, %t110  
 storew %t108, %r  
@l11  
 %t129 =w loadw %x  
 %t130 =w loadw %i  
 %t128 =w sub %t129, %t130  
 %t126 =w cslew 0, %t128  
 %t134 =w loadw %y  
 %t135 =w loadw %i  
 %t133 =w sub %t134, %t135  
 %t131 =w cslew 0, %t133  
 %t125 =w and %t126, %t131  
 jnz %t125, @l13, @l14  
@l13  
 %t138 =w loadw %r  
 %t143 =l loadl %t  
 %t145 =w loadw %x  
 %t146 =w loadw %i  
 %t144 =w sub %t145, %t146  
 %t147 =l extsw %t144  
 %t148 =l mul 8, %t147  
 %t142 =l add %t143, %t148  
 %t141 =l loadl %t142  
 %t150 =w loadw %y  
 %t151 =w loadw %i  
 %t149 =w sub %t150, %t151  
 %t152 =l extsw %t149  
 %t153 =l mul 4, %t152  
 %t140 =l add %t141, %t153  
 %t139 =w loadw %t140  
 %t137 =w add %t138, %t139  
 storew %t137, %r  
@l14  
 %t155 =w loadw %i  
 %t154 =w add %t155, 1  
 storew %t154, %i  
 jmp @l1  
@l3  
 %t156 =w loadw %r  
 ret %t156  
}  
  
  
--- Output: size 382 ---  
@l0  
 lv\_out = %i %Q %r %t %x %y   
@l1  
 lv\_out = %r %t %x %i %y %Q   
@l2  
 lv\_out = %r %t %x %i %y %Q   
@l4  
 lv\_out = %x %i %Q %y %r %t   
@l5  
 lv\_out = %r %t %x %i %y %Q   
@l7  
 lv\_out = %x %i %y %Q %r %t   
@l8  
 lv\_out = %r %t %x %i %y %Q   
@l10  
 lv\_out = %x %i %y %r %t %Q   
@l11  
 lv\_out = %r %t %x %i %y %Q   
@l13  
 lv\_out = %i %Q %r %t %x %y   
@l14  
 lv\_out = %i %Q %r %t %x %y   
@l3  
 lv\_out =   
  
--- Correct: size 382 ---  
@l0  
 lv\_out = %Q %i %y %x %r %t  
  
@l1  
 lv\_out = %Q %i %y %x %r %t  
  
@l2  
 lv\_out = %r %i %y %x %t %Q  
  
@l4  
 lv\_out = %i %y %Q %x %r %t  
  
@l5  
 lv\_out = %r %i %y %x %t %Q  
  
@l7  
 lv\_out = %Q %i %y %x %r %t  
  
@l8  
 lv\_out = %r %i %y %x %t %Q  
  
@l10  
 lv\_out = %i %y %x %r %t %Q  
  
@l11  
 lv\_out = %r %i %y %x %t %Q  
  
@l13  
 lv\_out = %Q %i %y %x %r %t  
  
@l14  
 lv\_out = %Q %i %y %x %r %t  
  
@l3  
 lv\_out =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=4, stime=0, ptime=4, rtime=8, maxvsz=21671936, maxrss=3592192, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=3, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #8 =======**  
--- Input: size 1274 ---  
export function w $go(w %t0, w %t1, l %t2, w %t3) {  
@l0  
 %y =l alloc4 4  
 storew %t0, %y  
 %Q =l alloc4 4  
 storew %t1, %Q  
 %t =l alloc8 8  
 storel %t2, %t  
 %N =l alloc4 4  
 storew %t3, %N  
 %x =l alloc4 4  
 %t5 =w loadw %y  
 %t6 =w loadw %Q  
 %t4 =w ceqw %t5, %t6  
 jnz %t4, @l1, @l2  
@l1  
 %t7 =w call $print(...)  
 %t9 =w loadw %N  
 %t8 =w add %t9, 1  
 storew %t8, %N  
 ret 0  
@l2  
 storew 0, %x  
@l4  
 %t14 =w loadw %x  
 %t15 =w loadw %Q  
 %t13 =w csltw %t14, %t15  
 jnz %t13, @l5, @l6  
@l5  
 %t18 =w loadw %x  
 %t19 =w loadw %y  
 %t17 =w call $chk(w %t18, w %t19, ...)  
 %t16 =w ceqw %t17, 0  
 jnz %t16, @l7, @l8  
@l7  
 %t25 =l loadl %t  
 %t26 =w loadw %x  
 %t27 =l extsw %t26  
 %t28 =l mul 8, %t27  
 %t24 =l add %t25, %t28  
 %t23 =l loadl %t24  
 %t29 =w loadw %y  
 %t30 =l extsw %t29  
 %t31 =l mul 4, %t30  
 %t22 =l add %t23, %t31  
 %t32 =w loadw %t22  
 %t21 =w add %t32, 1  
 storew %t21, %t22  
 %t35 =w loadw %y  
 %t34 =w add %t35, 1  
 %t33 =w call $go(w %t34, ...)  
 %t41 =l loadl %t  
 %t42 =w loadw %x  
 %t43 =l extsw %t42  
 %t44 =l mul 8, %t43  
 %t40 =l add %t41, %t44  
 %t39 =l loadl %t40  
 %t45 =w loadw %y  
 %t46 =l extsw %t45  
 %t47 =l mul 4, %t46  
 %t38 =l add %t39, %t47  
 %t48 =w loadw %t38  
 %t37 =w sub %t48, 1  
 storew %t37, %t38  
@l8  
 %t50 =w loadw %x  
 %t49 =w add %t50, 1  
 storew %t49, %x  
 jmp @l4  
@l6  
 ret 0  
}  
  
  
--- Output: size 195 ---  
@l0  
 lv\_out = %N %x %Q %y %t   
@l1  
 lv\_out =   
@l2  
 lv\_out = %x %Q %y %t   
@l4  
 lv\_out = %x %y %t %Q   
@l5  
 lv\_out = %t %x %y %Q   
@l7  
 lv\_out = %x %Q %y %t   
@l8  
 lv\_out = %x %Q %y %t   
@l6  
 lv\_out =   
  
--- Correct: size 195 ---  
@l0  
 lv\_out = %N %x %Q %y %t  
  
@l1  
 lv\_out =  
  
@l2  
 lv\_out = %Q %x %y %t  
  
@l4  
 lv\_out = %y %x %t %Q  
  
@l5  
 lv\_out = %y %x %t %Q  
  
@l7  
 lv\_out = %Q %x %y %t  
  
@l8  
 lv\_out = %Q %x %y %t  
  
@l6  
 lv\_out =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=4, stime=0, ptime=4, rtime=6, maxvsz=21671936, maxrss=3469312, nvcsw=1, nivcsw=3 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #9 =======**  
--- Input: size 843 ---  
export function w $main(w %t0, l %t1, w %t2, w %t3) {  
@l0  
 %ac =l alloc4 4  
 storew %t0, %ac  
 %av =l alloc8 8  
 storel %t1, %av  
 %Q =l alloc4 4  
 storew %t2, %Q  
 %N =l alloc4 4  
 storew %t3, %N  
 %i =l alloc4 4  
 %t =l alloc8 8  
 storew 8, %Q  
 %t8 =w loadw %ac  
 %t6 =w cslew 2, %t8  
 jnz %t6, @l1, @l2  
@l1  
 %t13 =l loadl %av  
 %t12 =l add %t13, 8  
 %t11 =l loadl %t12  
 %t10 =w call $atoi(l %t11, ...)  
 storew %t10, %Q  
@l2  
 storew 0, %i  
@l4  
 %t18 =w loadw %i  
 %t19 =w loadw %Q  
 %t17 =w csltw %t18, %t19  
 jnz %t17, @l5, @l6  
@l5  
 %t22 =w loadw %Q  
 %t21 =w mul %t22, 4  
 %t25 =l loadl %t  
 %t26 =w loadw %i  
 %t27 =l extsw %t26  
 %t28 =l mul 4, %t27  
 %t24 =l add %t25, %t28  
 storew %t21, %t24  
 %t30 =w loadw %i  
 %t29 =w add %t30, 1  
 storew %t29, %i  
 jmp @l4  
@l6  
 %t31 =w call $go(w 0, ...)  
 %t35 =w loadw %N  
 %t33 =w call $printf(l $glo1, w %t35, ...)  
 ret 0  
}  
  
--- Output: size 154 ---  
@l0  
 lv\_out = %av %Q %i %t %N   
@l1  
 lv\_out = %i %Q %t %N   
@l2  
 lv\_out = %i %Q %t %N   
@l4  
 lv\_out = %Q %t %i %N   
@l5  
 lv\_out = %i %Q %t %N   
@l6  
 lv\_out =   
  
--- Correct: size 154 ---  
@l0  
 lv\_out = %Q %av %i %t %N  
  
@l1  
 lv\_out = %i %Q %t %N  
  
@l2  
 lv\_out = %Q %i %t %N  
  
@l4  
 lv\_out = %Q %i %t %N  
  
@l5  
 lv\_out = %Q %i %t %N  
  
@l6  
 lv\_out =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=4, stime=0, ptime=4, rtime=5, maxvsz=21671936, maxrss=3522560, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #10 =======**  
--- Input: size 1324 ---  
export function w $main() {  
@l0  
 %n =l alloc4 4  
 %nv =l alloc4 4  
 %c =l alloc4 4  
 %cmax =l alloc4 4  
 %mem =l alloc8 8  
 storew 0, %cmax  
 storew 1, %nv  
@l1  
 %t5 =w loadw %nv  
 %t4 =w csltw %t5, 10  
 jnz %t4, @l2, @l3  
@l2  
 %t8 =w loadw %nv  
 storew %t8, %n  
 storew 0, %c  
@l4  
 %t12 =w loadw %n  
 %t11 =w cnew %t12, 1  
 jnz %t11, @l5, @l6  
@l5  
 %t15 =w loadw %n  
 %t16 =w loadw %nv  
 %t14 =w csltw %t15, %t16  
 jnz %t14, @l7, @l8  
@l7  
 %t19 =w loadw %c  
 %t22 =l loadl %mem  
 %t23 =w loadw %n  
 %t24 =l extsw %t23  
 %t25 =l mul 4, %t24  
 %t21 =l add %t22, %t25  
 %t20 =w loadw %t21  
 %t18 =w add %t19, %t20  
 storew %t18, %c  
 jmp @l6  
@l8  
 %t27 =w loadw %n  
 %t26 =w and %t27, 1  
 jnz %t26, @l10, @l11  
@l10  
 %t33 =w loadw %n  
 %t31 =w mul 3, %t33  
 %t30 =w add %t31, 1  
 storew %t30, %n  
 jmp @l12  
@l11  
 %t37 =w loadw %n  
 %t36 =w div %t37, 2  
 storew %t36, %n  
@l12  
 %t40 =w loadw %c  
 %t39 =w add %t40, 1  
 storew %t39, %c  
 jmp @l4  
@l6  
 %t42 =w loadw %c  
 %t44 =l loadl %mem  
 %t45 =w loadw %nv  
 %t46 =l extsw %t45  
 %t47 =l mul 4, %t46  
 %t43 =l add %t44, %t47  
 storew %t42, %t43  
 %t49 =w loadw %cmax  
 %t50 =w loadw %c  
 %t48 =w csltw %t49, %t50  
 jnz %t48, @l13, @l14  
@l13  
 %t52 =w loadw %c  
 storew %t52, %cmax  
@l14  
 %t54 =w loadw %nv  
 %t53 =w add %t54, 1  
 storew %t53, %nv  
 jmp @l1  
@l3  
 %t57 =w loadw %cmax  
 %t55 =w call $printf(l $glo1, w %t57, ...)  
 ret 0  
}  
  
--- Output: size 488 ---  
@l0  
 lv\_out = %nv %n %c %mem %cmax   
@l1  
 lv\_out = %nv %n %c %mem %cmax   
@l2  
 lv\_out = %n %c %mem %nv %cmax   
@l4  
 lv\_out = %n %nv %c %mem %cmax   
@l5  
 lv\_out = %c %mem %n %nv %cmax   
@l7  
 lv\_out = %c %mem %nv %cmax %n   
@l8  
 lv\_out = %n %c %mem %nv %cmax   
@l10  
 lv\_out = %c %n %mem %nv %cmax   
@l11  
 lv\_out = %c %n %mem %nv %cmax   
@l12  
 lv\_out = %n %c %mem %nv %cmax   
@l6  
 lv\_out = %c %cmax %nv %n %mem   
@l13  
 lv\_out = %nv %n %c %mem %cmax   
@l14  
 lv\_out = %nv %n %c %mem %cmax   
@l3  
 lv\_out =   
  
--- Correct: size 488 ---  
@l0  
 lv\_out = %nv %c %n %cmax %mem  
  
@l1  
 lv\_out = %c %n %nv %cmax %mem  
  
@l2  
 lv\_out = %n %nv %c %cmax %mem  
  
@l4  
 lv\_out = %nv %n %c %cmax %mem  
  
@l5  
 lv\_out = %c %n %mem %cmax %nv  
  
@l7  
 lv\_out = %c %cmax %nv %mem %n  
  
@l8  
 lv\_out = %n %c %nv %cmax %mem  
  
@l10  
 lv\_out = %n %c %nv %cmax %mem  
  
@l11  
 lv\_out = %n %c %nv %cmax %mem  
  
@l12  
 lv\_out = %n %nv %c %cmax %mem  
  
@l6  
 lv\_out = %cmax %c %nv %n %mem  
  
@l13  
 lv\_out = %nv %c %n %cmax %mem  
  
@l14  
 lv\_out = %nv %c %n %cmax %mem  
  
@l3  
 lv\_out =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=8, stime=0, ptime=8, rtime=9, maxvsz=21671936, maxrss=3624960, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #11 =======**  
--- Input: size 1359 ---  
export function w $main() {  
@l0  
 %i =l alloc4 4  
 %a =l alloc4 4  
 %b =l alloc4 4  
 %c =l alloc4 4  
 %d =l alloc4 4  
 storew 1, %a  
@l1  
 %t3 =w loadw %a  
 %t2 =w csltw %t3, 1000  
 jnz %t2, @l2, @l3  
@l2  
 %t7 =w loadw %a  
 %t6 =w add %t7, 1  
 storew %t6, %b  
@l4  
 %t10 =w loadw %b  
 %t9 =w csltw %t10, 1000  
 jnz %t9, @l5, @l6  
@l5  
 %t15 =w loadw %a  
 %t16 =w loadw %a  
 %t14 =w mul %t15, %t16  
 %t18 =w loadw %b  
 %t19 =w loadw %b  
 %t17 =w mul %t18, %t19  
 %t13 =w add %t14, %t17  
 storew %t13, %d  
 storew 0, %i  
@l7  
 %t23 =w loadw %i  
 %t22 =w csltw %t23, 1000  
 jnz %t22, @l8, @l9  
@l8  
 %t27 =w loadw %i  
 %t28 =w loadw %i  
 %t26 =w mul %t27, %t28  
 %t29 =w loadw %d  
 %t25 =w ceqw %t26, %t29  
 jnz %t25, @l10, @l11  
@l10  
 %t31 =w loadw %i  
 storew %t31, %c  
 %t33 =w loadw %b  
 %t34 =w loadw %c  
 %t32 =w csltw %t33, %t34  
 jnz %t32, @l16, @l14  
@l16  
 %t38 =w loadw %a  
 %t39 =w loadw %b  
 %t37 =w add %t38, %t39  
 %t40 =w loadw %c  
 %t36 =w add %t37, %t40  
 %t35 =w ceqw %t36, 1000  
 jnz %t35, @l13, @l14  
@l13  
 %t46 =w loadw %a  
 %t47 =w loadw %b  
 %t45 =w mul %t46, %t47  
 %t48 =w loadw %c  
 %t44 =w mul %t45, %t48  
 %t42 =w call $printf(l $glo1, w %t44, ...)  
 ret 0  
@l14  
 jmp @l9  
@l11  
 %t51 =w loadw %i  
 %t50 =w add %t51, 1  
 storew %t50, %i  
 jmp @l7  
@l9  
 %t53 =w loadw %b  
 %t52 =w add %t53, 1  
 storew %t52, %b  
 jmp @l4  
@l6  
 %t55 =w loadw %a  
 %t54 =w add %t55, 1  
 storew %t54, %a  
 jmp @l1  
@l3  
 ret 0  
}  
  
--- Output: size 425 ---  
@l0  
 lv\_out = %a %b %d %i %c   
@l1  
 lv\_out = %a %b %d %i %c   
@l2  
 lv\_out = %b %a %d %i %c   
@l4  
 lv\_out = %a %b %d %i %c   
@l5  
 lv\_out = %i %d %c %b %a   
@l7  
 lv\_out = %i %d %c %b %a   
@l8  
 lv\_out = %i %c %b %a %d   
@l10  
 lv\_out = %a %b %c %d %i   
@l16  
 lv\_out = %a %b %c %d %i   
@l13  
 lv\_out =   
@l14  
 lv\_out = %b %a %d %i %c   
@l11  
 lv\_out = %i %d %c %b %a   
@l9  
 lv\_out = %b %a %d %i %c   
@l6  
 lv\_out = %a %b %d %i %c   
@l3  
 lv\_out =   
  
--- Correct: size 425 ---  
@l0  
 lv\_out = %a %b %i %d %c  
  
@l1  
 lv\_out = %b %a %i %d %c  
  
@l2  
 lv\_out = %b %i %d %a %c  
  
@l4  
 lv\_out = %i %d %b %a %c  
  
@l5  
 lv\_out = %i %d %b %c %a  
  
@l7  
 lv\_out = %d %i %b %c %a  
  
@l8  
 lv\_out = %c %b %i %a %d  
  
@l10  
 lv\_out = %c %b %a %i %d  
  
@l16  
 lv\_out = %c %b %a %i %d  
  
@l13  
 lv\_out =  
  
@l14  
 lv\_out = %b %i %d %a %c  
  
@l11  
 lv\_out = %i %d %b %c %a  
  
@l9  
 lv\_out = %b %i %d %a %c  
  
@l6  
 lv\_out = %a %b %i %d %c  
  
@l3  
 lv\_out =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=4, stime=4, ptime=8, rtime=9, maxvsz=21671936, maxrss=3522560, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #12 =======**  
--- Input: size 726 ---  
export function w $board() {  
@l0  
 %x =l alloc4 4  
 %y =l alloc4 4  
 %b =l alloc8 8  
 storew 0, %y  
@l1  
 %t3 =w loadw %y  
 %t2 =w csltw %t3, 8  
 jnz %t2, @l2, @l3  
@l2  
 storew 0, %x  
@l4  
 %t8 =w loadw %x  
 %t7 =w csltw %t8, 8  
 jnz %t7, @l5, @l6  
@l5  
 %t16 =l loadl %b  
 %t17 =w loadw %x  
 %t18 =l extsw %t17  
 %t19 =l mul 8, %t18  
 %t15 =l add %t16, %t19  
 %t14 =l loadl %t15  
 %t20 =w loadw %y  
 %t21 =l extsw %t20  
 %t22 =l mul 4, %t21  
 %t13 =l add %t14, %t22  
 %t12 =w loadw %t13  
 %t10 =w call $printf(l $glo1, w %t12, ...)  
 %t24 =w loadw %x  
 %t23 =w add %t24, 1  
 storew %t23, %x  
 jmp @l4  
@l6  
 %t25 =w call $printf(l $glo2, ...)  
 %t28 =w loadw %y  
 %t27 =w add %t28, 1  
 storew %t27, %y  
 jmp @l1  
@l3  
 %t29 =w call $printf(l $glo3, ...)  
 ret 0  
}  
  
--- Output: size 159 ---  
@l0  
 lv\_out = %y %x %b   
@l1  
 lv\_out = %x %b %y   
@l2  
 lv\_out = %x %b %y   
@l4  
 lv\_out = %b %x %y   
@l5  
 lv\_out = %x %b %y   
@l6  
 lv\_out = %y %x %b   
@l3  
 lv\_out =   
  
--- Correct: size 159 ---  
@l0  
 lv\_out = %y %x %b  
  
@l1  
 lv\_out = %x %y %b  
  
@l2  
 lv\_out = %x %y %b  
  
@l4  
 lv\_out = %x %y %b  
  
@l5  
 lv\_out = %x %y %b  
  
@l6  
 lv\_out = %y %x %b  
  
@l3  
 lv\_out =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=4, stime=0, ptime=4, rtime=6, maxvsz=21671936, maxrss=3411968, nvcsw=1, nivcsw=5 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=1 }  
  
**====== Test #13 =======**  
--- Input: size 641 ---  
export function w $chk(w %t0, w %t1) {  
@l0  
 %x =l alloc4 4  
 storew %t0, %x  
 %y =l alloc4 4  
 storew %t1, %y  
 %b =l alloc8 8  
 %t3 =w loadw %x  
 %t2 =w csltw %t3, 0  
 jnz %t2, @l1, @l6  
@l6  
 %t7 =w loadw %x  
 %t5 =w csltw 7, %t7  
 jnz %t5, @l1, @l5  
@l5  
 %t9 =w loadw %y  
 %t8 =w csltw %t9, 0  
 jnz %t8, @l1, @l4  
@l4  
 %t13 =w loadw %y  
 %t11 =w csltw 7, %t13  
 jnz %t11, @l1, @l2  
@l1  
 ret 0  
@l2  
 %t20 =l loadl %b  
 %t21 =w loadw %x  
 %t22 =l extsw %t21  
 %t23 =l mul 8, %t22  
 %t19 =l add %t20, %t23  
 %t18 =l loadl %t19  
 %t24 =w loadw %y  
 %t25 =l extsw %t24  
 %t26 =l mul 4, %t25  
 %t17 =l add %t18, %t26  
 %t16 =w loadw %t17  
 %t15 =w ceqw %t16, 0  
 ret %t15  
}  
  
  
--- Output: size 126 ---  
@l0  
 lv\_out = %x %y %b   
@l6  
 lv\_out = %y %b %x   
@l5  
 lv\_out = %y %b %x   
@l4  
 lv\_out = %b %x %y   
@l1  
 lv\_out =   
@l2  
 lv\_out =   
  
--- Correct: size 126 ---  
@l0  
 lv\_out = %x %y %b  
  
@l6  
 lv\_out = %y %x %b  
  
@l5  
 lv\_out = %y %x %b  
  
@l4  
 lv\_out = %y %x %b  
  
@l1  
 lv\_out =  
  
@l2  
 lv\_out =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=4, stime=0, ptime=4, rtime=5, maxvsz=21671936, maxrss=3518464, nvcsw=1, nivcsw=1 }  
checker: { utime=0, stime=0, ptime=0, rtime=3, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #14 =======**  
--- Input: size 2185 ---  
export function w $go(w %t0, w %t1, w %t2) {  
@l0  
 %k =l alloc4 4  
 storew %t0, %k  
 %x =l alloc4 4  
 storew %t1, %x  
 %y =l alloc4 4  
 storew %t2, %y  
 %i =l alloc4 4  
 %j =l alloc4 4  
 %b =l alloc8 8  
 %N =l alloc4 4  
 %t4 =w loadw %k  
 %t8 =l loadl %b  
 %t9 =w loadw %x  
 %t10 =l extsw %t9  
 %t11 =l mul 8, %t10  
 %t7 =l add %t8, %t11  
 %t6 =l loadl %t7  
 %t12 =w loadw %y  
 %t13 =l extsw %t12  
 %t14 =l mul 4, %t13  
 %t5 =l add %t6, %t14  
 storew %t4, %t5  
 %t16 =w loadw %k  
 %t15 =w ceqw %t16, 64  
 jnz %t15, @l1, @l2  
@l1  
 %t19 =w loadw %x  
 %t18 =w cnew %t19, 2  
 jnz %t18, @l8, @l5  
@l8  
 %t22 =w loadw %y  
 %t21 =w cnew %t22, 0  
 jnz %t21, @l7, @l5  
@l7  
 %t28 =w loadw %x  
 %t27 =w sub %t28, 2  
 %t26 =w call $abs(w %t27, ...)  
 %t31 =w loadw %y  
 %t30 =w call $abs(w %t31, ...)  
 %t25 =w add %t26, %t30  
 %t24 =w ceqw %t25, 3  
 jnz %t24, @l4, @l5  
@l4  
 %t33 =w call $board(...)  
 %t35 =w loadw %N  
 %t34 =w add %t35, 1  
 storew %t34, %N  
 %t37 =w loadw %N  
 %t36 =w ceqw %t37, 10  
 jnz %t36, @l9, @l10  
@l9  
 %t39 =w call $exit(w 0, ...)  
@l10  
@l5  
 jmp @l3  
@l2  
 %t42 =w sub 0, 2  
 storew %t42, %i  
@l12  
 %t46 =w loadw %i  
 %t45 =w cslew %t46, 2  
 jnz %t45, @l13, @l14  
@l13  
 %t49 =w sub 0, 2  
 storew %t49, %j  
@l15  
 %t53 =w loadw %j  
 %t52 =w cslew %t53, 2  
 jnz %t52, @l16, @l17  
@l16  
 %t58 =w loadw %i  
 %t57 =w call $abs(w %t58, ...)  
 %t60 =w loadw %j  
 %t59 =w call $abs(w %t60, ...)  
 %t56 =w add %t57, %t59  
 %t55 =w ceqw %t56, 3  
 jnz %t55, @l21, @l19  
@l21  
 %t64 =w loadw %x  
 %t65 =w loadw %i  
 %t63 =w add %t64, %t65  
 %t67 =w loadw %y  
 %t68 =w loadw %j  
 %t66 =w add %t67, %t68  
 %t62 =w call $chk(w %t63, w %t66, ...)  
 jnz %t62, @l18, @l19  
@l18  
 %t71 =w loadw %k  
 %t70 =w add %t71, 1  
 %t74 =w loadw %x  
 %t75 =w loadw %i  
 %t73 =w add %t74, %t75  
 %t77 =w loadw %y  
 %t78 =w loadw %j  
 %t76 =w add %t77, %t78  
 %t69 =w call $go(w %t70, w %t73, w %t76, ...)  
@l19  
 %t80 =w loadw %j  
 %t79 =w add %t80, 1  
 storew %t79, %j  
 jmp @l15  
@l17  
 %t82 =w loadw %i  
 %t81 =w add %t82, 1  
 storew %t81, %i  
 jmp @l12  
@l14  
@l3  
 %t88 =l loadl %b  
 %t89 =w loadw %x  
 %t90 =l extsw %t89  
 %t91 =l mul 8, %t90  
 %t87 =l add %t88, %t91  
 %t86 =l loadl %t87  
 %t92 =w loadw %y  
 %t93 =l extsw %t92  
 %t94 =l mul 4, %t93  
 %t85 =l add %t86, %t94  
 storew 0, %t85  
 ret 0  
}  
  
  
--- Output: size 559 ---  
@l0  
 lv\_out = %x %y %N %b %i %j %k   
@l1  
 lv\_out = %y %x %N %b   
@l8  
 lv\_out = %x %y %N %b   
@l7  
 lv\_out = %N %b %x %y   
@l4  
 lv\_out = %b %x %y   
@l9  
 lv\_out = %b %x %y   
@l10  
 lv\_out = %b %x %y   
@l5  
 lv\_out = %b %x %y   
@l2  
 lv\_out = %i %j %x %y %k %b   
@l12  
 lv\_out = %j %i %x %y %k %b   
@l13  
 lv\_out = %j %i %x %y %k %b   
@l15  
 lv\_out = %i %j %x %y %k %b   
@l16  
 lv\_out = %x %i %y %j %k %b   
@l21  
 lv\_out = %k %x %i %y %j %b   
@l18  
 lv\_out = %j %i %x %y %k %b   
@l19  
 lv\_out = %j %i %x %y %k %b   
@l17  
 lv\_out = %i %j %x %y %k %b   
@l14  
 lv\_out = %b %x %y   
@l3  
 lv\_out =   
  
--- Correct: size 559 ---  
@l0  
 lv\_out = %x %i %y %b %j %N %k  
  
@l1  
 lv\_out = %y %x %b %N  
  
@l8  
 lv\_out = %y %x %N %b  
  
@l7  
 lv\_out = %N %y %x %b  
  
@l4  
 lv\_out = %y %x %b  
  
@l9  
 lv\_out = %y %x %b  
  
@l10  
 lv\_out = %y %x %b  
  
@l5  
 lv\_out = %y %x %b  
  
@l2  
 lv\_out = %i %j %y %x %b %k  
  
@l12  
 lv\_out = %j %y %x %b %i %k  
  
@l13  
 lv\_out = %j %i %y %x %k %b  
  
@l15  
 lv\_out = %j %i %y %x %k %b  
  
@l16  
 lv\_out = %j %y %i %x %k %b  
  
@l21  
 lv\_out = %j %y %i %x %k %b  
  
@l18  
 lv\_out = %j %i %y %x %k %b  
  
@l19  
 lv\_out = %j %i %y %x %k %b  
  
@l17  
 lv\_out = %i %j %y %x %b %k  
  
@l14  
 lv\_out = %y %x %b  
  
@l3  
 lv\_out =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=12, stime=0, ptime=12, rtime=15, maxvsz=21671936, maxrss=3600384, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }  
  
**====== Test #15 =======**  
--- Input: size 392 ---  
export function w $main() {  
@l0  
 %i =l alloc4 4  
 %b =l alloc8 8  
 %t0 =w call $printf(l $glo1, ...)  
 storew 0, %i  
@l1  
 %t5 =w loadw %i  
 %t4 =w csltw %t5, 8  
 jnz %t4, @l2, @l3  
@l2  
 %t8 =w mul 8, 4  
 %t12 =l loadl %b  
 %t13 =w loadw %i  
 %t14 =l extsw %t13  
 %t15 =l mul 4, %t14  
 %t11 =l add %t12, %t15  
 storew %t8, %t11  
 %t17 =w loadw %i  
 %t16 =w add %t17, 1  
 storew %t16, %i  
 jmp @l1  
@l3  
 ret 0  
}  
  
--- Output: size 78 ---  
@l0  
 lv\_out = %i %b   
@l1  
 lv\_out = %b %i   
@l2  
 lv\_out = %i %b   
@l3  
 lv\_out =   
  
--- Correct: size 78 ---  
@l0  
 lv\_out = %i %b  
  
@l1  
 lv\_out = %i %b  
  
@l2  
 lv\_out = %i %b  
  
@l3  
 lv\_out =  
  
  
--- Stderr: size 0 ---  
  
--- Checker output: size 3 ---  
OK  
  
--- Resource usage ---  
program: { utime=0, stime=0, ptime=0, rtime=5, maxvsz=21671936, maxrss=3448832, nvcsw=1, nivcsw=2 }  
checker: { utime=0, stime=0, ptime=0, rtime=3, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }

**====== Test #16 =======**

--- Input: size 382 ---

export function w $f(w %n, w %m) {

@start

%a =w mul %n, %m

%b =w sub %n, %m

%cmp1 =w csgtw %n, 0

jnz %cmp1, @np, @nn

@np

%cmp2 =w csgtw %m, 0

jnz %cmp2, @positive, @np\_mn

@positive

%a =w add %a, 4

jmp @ret

@np\_mn

%a =w add %a, %b

jmp @ret

@nn

%n =w add %n, %b

jmp @positive

@ret

ret %a

}

--- Output: size 136 ---

@start

lv\_out = %a %b %m %n

@np

lv\_out = %a %b

@positive

lv\_out = %a

@np\_mn

lv\_out = %a

@nn

lv\_out = %a

@ret

lv\_out =

--- Correct: size 130 ---

@ret

lv\_out =

@positive

lv\_out = %a

@np\_mn

lv\_out = %a

@np

lv\_out = %a %b

@nn

lv\_out = %a

@start

lv\_out = %a %b %m %n

--- Stderr: size 0 ---

--- Checker output: size 3 ---

OK

--- Resource usage ---

program: { utime=0, stime=0, ptime=0, rtime=4, maxvsz=21655552, maxrss=3600384, nvcsw=1, nivcsw=2 }

checker: { utime=0, stime=0, ptime=0, rtime=2, maxvsz=331776, maxrss=1744896, nvcsw=1, nivcsw=2 }