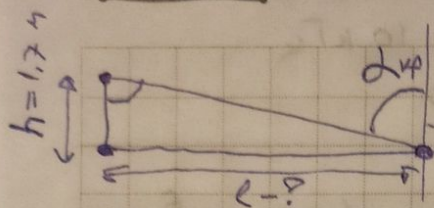


№2.12



$$\Delta t = 3^\circ \text{C}$$

$$h = 1,7 \text{ м}$$

$$\frac{\partial n}{\partial T} = -0,98 \cdot 10^{-6} \text{ град}^{-1}$$

Найти l .

$$\sin(\alpha_{kp}) = \frac{n_2}{n_1}$$

Табличное значение:

$$n_{\text{возд}} = 1,0003 = n_1$$

$$n_2 = n_1 - 0,98 \cdot 3 \cdot 10^{-6} =$$

$$= n_1 - 0,00000294$$

$$n_2 = 1,00029706$$

← коэф. преломления воздуха, температура которого больше на 3°C

$$\sin(\alpha_{kp}) = \frac{n_2}{n_1} = 0,999997061$$

$$\cos(\alpha_{kp}) = \sqrt{1 - \sin^2(\alpha_{kp})} = \sqrt{1 - 0,999894122} =$$

$$= \sqrt{0,000005878} = 0,002424$$

$$\text{tg}(\alpha_{kp}) = \frac{\sin(\alpha_{kp})}{\cos(\alpha_{kp})} = 412,45$$

$$l = \text{tg}(\alpha_{kp}) \cdot h = 1,7 \cdot 412,45 \approx 701 \text{ м}$$