

1. $l_{min} = l \cos \frac{\alpha}{2} \approx 86,6 \text{ м.}$
2. $S = \left(2 + \frac{\pi}{4}\right) v_0 t_0 \approx 278,5 \text{ м.}$
3. $h = \frac{n_0 - n_{\text{ж}} \sin \alpha}{\beta} = 5 \text{ м.}$
4. $R_{\text{обш}} = \frac{1}{2} R = 5,0 \text{ Ом.}$
5. $t = \frac{t_{\text{к}}(t_1 + t_2 - t_{\text{н}}) - t_2 t_{\text{н}}}{t_1 + t_{\text{к}} - 2t_{\text{н}}} = 33,0^\circ \text{C.}$