

T1-3a s. 3a

$$a) v = f \lambda, f = \frac{1}{T}$$

$$v = \frac{\lambda}{T} \quad T = \frac{\lambda}{v} = \frac{200 \text{ km}}{710 \text{ km/h}} \approx 0,2817 \text{ h} \approx 17 \text{ min}$$

$$b) v = \sqrt{gh} \quad || (\)^2 \quad h = \frac{\left(\frac{50}{3,6} \frac{\text{m}}{\text{s}}\right)^2}{9,81 \frac{\text{m}}{\text{s}^2}} \approx 20 \text{ m}$$

$$v^2 = gh$$

$$h = \frac{v^2}{g}$$

$$c) v_1 A_1 = v_2 A_2 \quad || v = \frac{v}{f}$$

$$\frac{v_1}{f} A_1 = \frac{v_2}{f} A_2 \quad || \cdot f$$

$$v_1 A_1 = v_2 A_2$$

$$A_2 = \frac{v_1}{v_2} A_1$$

$$A_2 = \frac{710 \text{ km/h}}{50 \text{ km/h}} \cdot 0,50 \text{ m}$$

$$\underline{\underline{A_2 \approx 7 \text{ m}}}$$