

$$1-11) \quad v_L = 300 \text{ m/s} \quad v_A = 340 \text{ m/s} \quad s = 150 \text{ m}$$

$$\begin{aligned} \text{Aika } t &= t_L + t_A \\ &= \frac{s}{v_L} + \frac{s}{v_A} = \frac{150 \text{ m}}{300 \text{ m/s}} + \frac{150 \text{ m}}{340 \text{ m/s}} = 0,941... \text{ s} \\ &\approx 0,95 \end{aligned}$$

$$1-12) \quad \Delta t = 18,53 - 17,35$$

$$\begin{aligned} &= 1 \text{ h } 18 \text{ min} \\ &= 1 \text{ h } + \frac{18}{60} \text{ h} = 1,3 \text{ h} \end{aligned}$$

Kun kellon ajoista lasketaan aikaero miinustamalla, voi laskea auton väärän tuloksen

$$\begin{array}{r} 18,53 \\ - 17,35 \\ \hline 1,18 \end{array}$$

Esim. Laskutone autoa väärän tuloksen??

$$\begin{array}{r} 18,26 \\ - 17,30 \\ \hline 0,96 \end{array}$$

0,90 ??

Keskivauhti

$$v_k = \frac{s}{t}$$

$$v_k = \frac{154 \text{ km}}{1,3 \text{ h}} = 118,46... \text{ km/h} \approx 118 \text{ km/h}$$

1-13)

$$s_1 = \frac{1}{3} \cdot 126 \text{ km} = 42 \text{ km}$$

$$v_1 = 95 \text{ km/h}$$

$$s_2 = 126 \text{ km} - 42 \text{ km} = 84 \text{ km}$$

$$v_2 = 75 \text{ km/h}$$

Kokonaisaika

$$t = t_1 + t_2$$

$$= \frac{s_1}{v_1} + \frac{s_2}{v_2}$$

$$= \frac{42 \text{ km}}{95 \text{ km/h}} + \frac{84 \text{ km}}{75 \text{ km/h}} = 1,562... \text{ h}$$

Keskivauhti

$$v_k = \frac{s}{t}$$

$$\begin{aligned} v_k &= \frac{126 \text{ km}}{1,562... \text{ h}} = 80,66... \text{ km/h} \\ &\approx 81 \text{ km/h} \end{aligned}$$