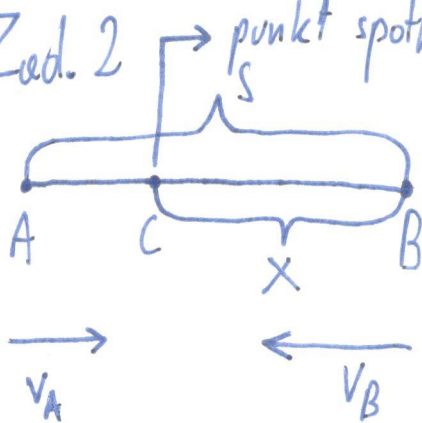


Zad. 2



$$t = t_A = t_B = 75 \text{ min}$$

$$t = 1\frac{1}{4} \text{ godz. [h]}$$

$$s = 35 \text{ km}$$

Z treści zadania:

$$v_A = \frac{3}{4} v_B$$

$s = v \cdot t$ z fizyki (kinematyka)

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

$$t_x = \frac{x}{v_A} = ?$$

Czas, w którym rowerzysta A przejedzie z punktu spotkania (C) do punktu B.

$$x = v_B \cdot t$$

$$v_B = \frac{4}{3} v_A$$

$$x = \frac{4}{3} v_A t$$

$$s - x = v_A \cdot t$$

$$s = v_A \cdot t + x$$

$$x = s - v_A \cdot t$$

$$\frac{4}{3} v_A t = s - v_A \cdot t$$

$$\frac{14}{3} v_A t = s$$

$$\frac{7}{3} v_A = \frac{s}{t}$$

$$v_A = \frac{s}{t} \cdot \frac{3}{7}$$

$$v_A = \frac{35}{1\frac{1}{4}} \cdot \frac{3}{7}$$

$$v_A = \frac{15}{t}$$

$$v_A = \frac{15 \text{ km}}{1\frac{1}{4} \text{ h}}$$

$$v_A = \frac{3 \cdot 15 \text{ km}}{\frac{5}{4} \text{ h}} = 12 \frac{\text{km}}{\text{h}}$$

$$x = 35 - 12 \cdot 1\frac{1}{4}$$

$$x = 35 - 12 \cdot \frac{5}{4}$$

$$x = 35 - 15$$

$$x = 20 \text{ [km]}$$

$$t_x = \frac{20 \text{ km}}{12 \frac{\text{km}}{\text{h}}}$$

$$t_x = \frac{5}{3} \text{ h}$$

$$t_x = 1\frac{2}{3} \text{ h}$$

$$t_x = 1 \text{ godz. i } 40 \text{ min}$$

Odp. Rowerzysta będzie ^{jeszcze} jechał przez 1. godz i 40 min.