

$$\begin{cases} s_F = -20 + v_F \Delta t \\ s_G = 0 - v_G \Delta t \end{cases}$$

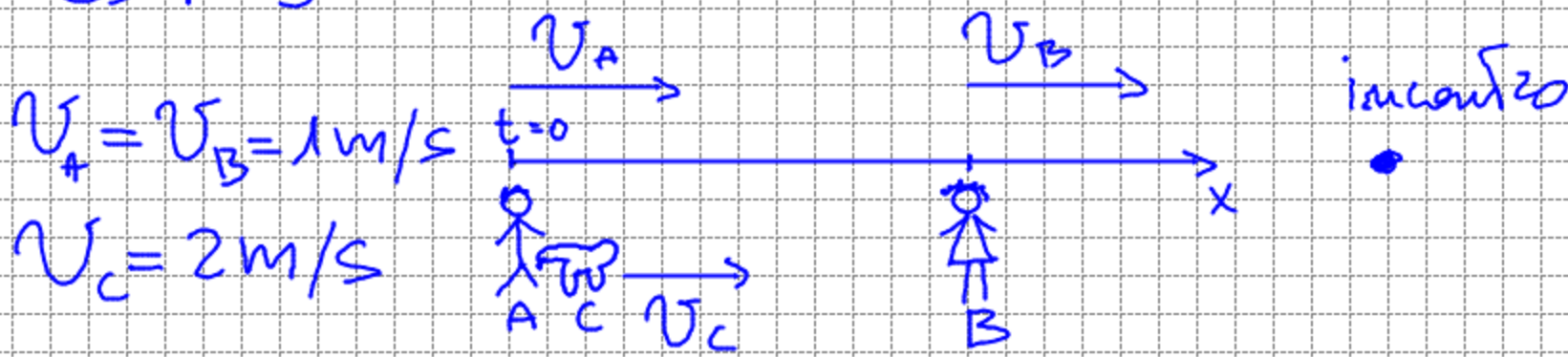
$$\begin{aligned} v_F &= 3 \frac{\text{m}}{\text{s}} \\ v_G &= 2 \frac{\text{m}}{\text{s}} \end{aligned}$$

si incontrano $s_F = s_G \Leftrightarrow -20 + 3 \frac{\text{m}}{\text{s}} \Delta t = 0 - 2 \frac{\text{m}}{\text{s}} \Delta t$

$$-20 \text{m} = -3 \frac{\text{m}}{\text{s}} \Delta t - 2 \frac{\text{m}}{\text{s}} \Delta t$$

$$+5 \frac{\text{m}}{\text{s}} \Delta t = +20 \text{m} \quad \Delta t = \frac{20}{5} \text{s} = 4 \text{s}$$

Es N°5



$$v_A = v_B = 1 \text{m/s}$$

$$v_C = 2 \text{m/s}$$

$$t_{c(12\text{m})} = \frac{s}{v} = \frac{12 \text{m}}{2 \text{m/s}} = 6 \text{s}$$

IN 6 SECONDI BIANCA PERCORRE 6m (PERCHÉ HA UNA V DI 1m/s)

BILLY IMPIEGA 3s PER PERCORRERE 6m ($v_c = 2\text{m/s}$)

$$\Delta t = \frac{6\text{s}}{2} = \frac{6\text{m}}{2 \text{m/s}} = 3 \text{s}$$

$$\begin{cases} s_c = v_c \cdot t \\ s_B = v_B \cdot t + 12 \end{cases}$$

$$\begin{cases} s_c = 2t \\ s_B = 1t + 12 \end{cases}$$

$$\begin{cases} 2t = 1t + 12 \\ s_c = 2t \end{cases}$$

$$\begin{cases} t = 12 \text{s} \\ s_c = 24 \text{m} \end{cases}$$