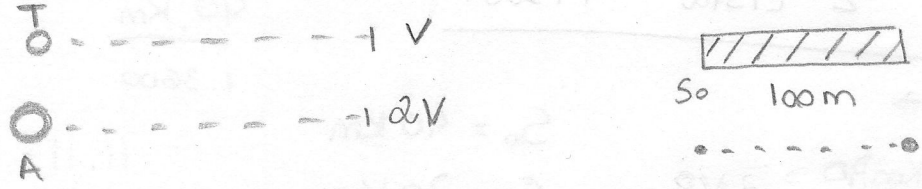
7)



$t = t'$

$$\frac{100 - 0}{V} = \frac{S}{2V}$$

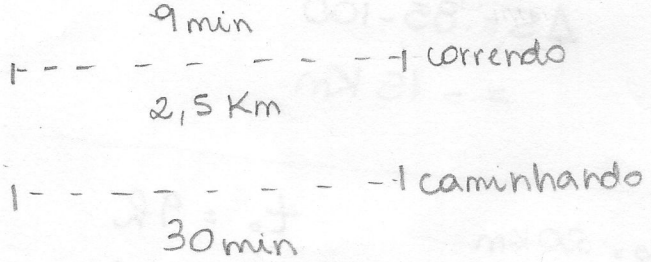
$$\frac{S - S_o}{V} = \frac{S - S_o}{2V}$$

$200V = SV$

$S = 200\ m$

---

8)



$$V' = \frac{2,5}{0,15} = 16,67\ \frac{Km}{h}$$

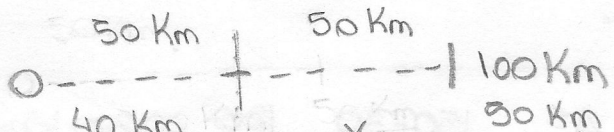
$$V'' = \frac{2,5}{0,5} = -5\ \frac{Km}{h}$$

$$V_m = \frac{S - S_o}{t - t_o} = \frac{0}{0,35} = 0\ \frac{Km}{h}$$

$$V_m = \frac{5\ Km}{0,65\ h} = 7,7\ \frac{Km}{h}$$

---

9)



$$\Delta t = \frac{100}{50} = 2\ h$$

$$t' = \frac{50}{40} = 1,25\ h$$

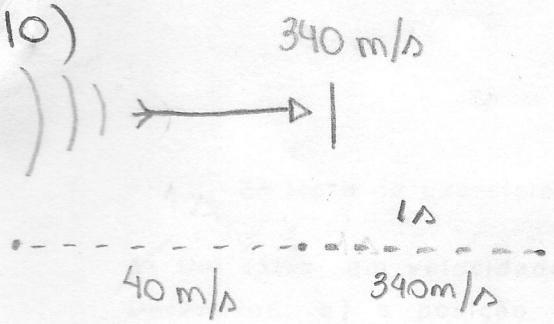
$t'' = \Delta t - t'$

$= 2 - 1,25$

$= 0,75$

$$V = \frac{50}{0,75} = 66,7\ Km/h$$

10)



$V = \frac{\Delta S}{\Delta t}$

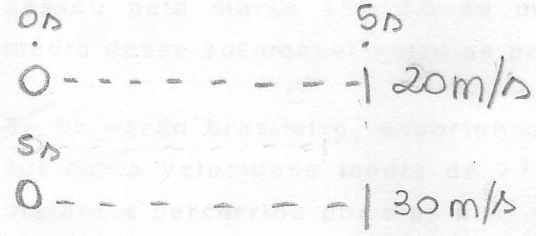
$\Delta S = V . \Delta t$

$\Delta S = 340 . 1$

$= 340\ m$

---

11)



$\Delta S'' = V . \Delta t = 30 . 10 = 300\ m$

$\Delta S' = V . \Delta t = 20 . 5 = 100\ m$

$t' = t''$

$\frac{S - S_0'}{V' . (t - t_0')} = \frac{S - S_0''}{V . (t - t_0'')}$

$V . (t - t_0') = V (t - t_0'')$

$20 (t - 5) = 30 (t - 0)$

$20t - 100 = 30t$

$10t = 100$

$t = 10\ s$

$t = 10 + 5 = 15\ s$