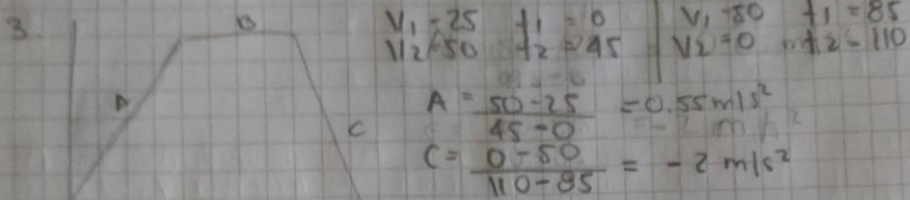


1. $U = 60 \text{ m/s}$ $t = \frac{d}{v} \rightarrow t = \frac{60 \text{ m/s}}{15 \text{ m}} = 4 \text{ s}$

2. $U = 3 \times 10^8 \text{ m/s}$ $t = \frac{3 \times 10^8 \text{ m}}{3 \times 10^5 \text{ m/s}} = \frac{1000}{3} = 333.33 \text{ s}$



4. $g = 9.8 \text{ m/s}^2$
 $t = 4 \text{ s}$
 $x = x_0 + v_0 t + \frac{1}{2} a t^2$
 $x = \frac{1}{2} \cdot a \cdot t \rightarrow x = \frac{1}{2} \cdot (9.8) (4)^2 = 78.4 \text{ m}$

5. $g = 9.8 \text{ m/s}^2$
 $d = 70 \text{ m}$
 $v_f^2 = v_0^2 + 2 \cdot a \cdot x$
 $v_f^2 = 2 \cdot (9.8) (70) = 1372 \rightarrow v_f = \sqrt{1372} = 37.04 \text{ m/s}$