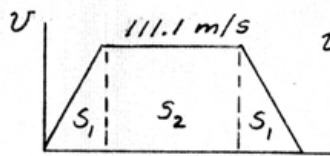


2/34

$$400 \text{ km/h} \equiv \frac{400}{3.6} = 111.1 \text{ m/s}$$



$$v^2 = 2as, \quad S_1 = \frac{(111.1)^2}{2(0.6)(9.81)} = 1049 \text{ m}$$

$$S_2 = 10000 - 2(1049) = 7903 \text{ m}$$

$$\left. \begin{aligned} t_1 &= \frac{v}{a} = \frac{111.1}{0.6(9.81)} = 18.88 \text{ s} \\ t_2 &= \frac{S_2}{v} = \frac{7903}{111.1} = 71.13 \text{ s} \end{aligned} \right\} \begin{aligned} t &= 2t_1 + t_2 \\ &= 2(18.88) + 71.13 \\ &= 108.9 \text{ s} \end{aligned}$$

$$\text{or } t = 1.81 \text{ min}$$