

Solution

$$1. V_0 = 6 * 5 \text{ m/s} = 30 \text{ m/s}$$

$$2. S_{t=0} = 51 \text{ m}$$

$$3. a = \frac{4 * 5 \text{ m/s}}{8 * 4 \text{ s}} = 0.625 \text{ m/s}^2$$

$$4. S_{t=32} = S_{t=0} + V_0 * t - \frac{a * t^2}{2} = 51 + 30 * 32 - \frac{0.625 * 32^2}{2} = 691 \text{ m}$$