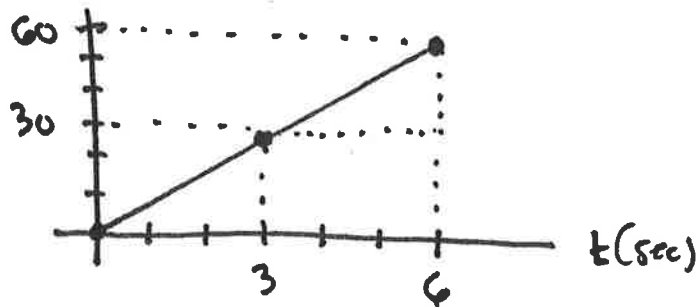


ASGV2

Ex 9.1 (falling cannonball)

v (m/s) downward



a) $v_{\text{init}} = 0$

$v_{\text{final}} = 60 \text{ m/s}$

b) $v_{\text{mean}} = 30 \text{ m/s}$

c) $d = v_{\text{mean}} \times \text{time} = 180 \text{ meters}$ (area of rectangle under 30 m/s)

d) $\frac{v(t=2)}{v(t=3)} = \frac{20}{30} = \frac{2}{3}$

e) $\frac{d(2 < t < 3)}{d(3 < t < 4)} = \frac{25}{35} = \frac{5}{7}$