

Materi 3 Latihan

1) $h = 400 \text{ m}$
 $U = 80 \text{ m/s}$
 $g = 10 \text{ m/s}^2$

$$* h = U_{y0} \pm \frac{1}{2} a t^2$$

$$t = \sqrt{\frac{2h}{g}}$$

$$= \sqrt{\frac{800}{10}}$$

$$= \sqrt{80}$$

$$= 8.94 \text{ s}$$

$$x = v \cdot t$$

$$x = 80 \cdot 8.94$$

$$x = 715.2 \text{ m}$$

2) $h = 25 \text{ m}$

$$v = 40 \text{ m/s}$$

$$\text{elevasi} = 30^\circ$$

$$g = 10 \text{ m/s}^2$$

$$* U_y = U_0 \cdot \sin 30^\circ$$

$$= 40 \cdot \frac{1}{2}$$

$$= 20$$

$$V_y^2 = U_0^2 - 2gy$$

$$0 = (20)^2 - 2 \cdot 10 \cdot y$$

$$20y = 400$$

$$y = \frac{400}{20}$$

$$y = 20 \text{ m}$$

3) $U_0 = 50 \text{ m/s}$

$$\text{elevasi} = 60^\circ$$

$$g = 10 \text{ m/s}^2$$

$$* U_y = U_0 \cdot \sin 60^\circ$$

$$= 50 \cdot \frac{1}{2} \sqrt{3}$$

$$= 25\sqrt{3}$$

$$t = \frac{U_0}{g} = \frac{50}{10}$$

$$= 5 \text{ Sekon}$$