

Andri | TPB 33 | IF

No 1.

$$\begin{aligned} V &= V_0 \cos 60^\circ \\ &= 40 \text{ m/s} \cdot (0.5) \\ &= 20 \text{ m/s} \end{aligned}$$

$$P_1 + P_2 = P_1 + P_2$$

$$(6)(20) = (2)(-20) + (4)(v_2)$$

$$v_2 = \frac{(120) + (40)}{4}$$

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

Tenaga kinetik sebelum meledak

$$K = \frac{1}{2} (m) (v_{\text{peluru}})^2$$

$$= \frac{1}{2} (6) (20)^2$$

$$= 1200 \text{ J}$$

Setelah meledak

$$K = K_{\text{peluru 1}} + K_{\text{peluru 2}}$$

$$= \frac{1}{2} (2) (20)^2 + \frac{1}{2} (4) (40)^2$$

$$= 3600 \text{ J}$$



Andri | TPB 53 | IF

No 2.

~~$I = 14.400$~~

~~$F = 588$~~

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$m = 60 \text{ kg}$

$a = 2 \text{ m/s} \rightarrow 10 \text{ m/s}$   $(10 - 2) = 8 \text{ m/s}$

$s = 10 \text{ m}$

$W_{saha} = 60 \times a \times 10$   
 $= 60 \times 8 \times 10$

$= 4800 \text{ J}$