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Kelas: XI PPL 3

LK 4

1). $m = 2 \text{ Kg}$

$$h = 5 \text{ m}$$

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

E_p

$$= m \times g \times h$$

$$= 2 \times 10 \times 5$$

$$= 100 \text{ J}$$

2). $m = 6 \text{ Kg}$

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

$$h = 1,5 \text{ m}$$

E_p

$$= m \times g \times h$$

$$= 6 \times 10 \times 1,5$$

$$= 90 \text{ J}$$

3). Kelapa: $m = 2 \text{ Kg}$

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

$$h = 8 \text{ m}$$

Nangka:

$$m = 3 \text{ Kg}$$

$$g = 10 \text{ m/s}^2 \quad h = 4 \text{ m}$$

E_p Kelapa

$$= m \times g \times h$$

$$= 2 \times 10 \times 8$$

$$= 160 \text{ J}$$

E_p Nangka

$$= m \times g \times h$$

$$= 3 \times 10 \times 4$$

$$= 120 \text{ J}$$

Perbandingan = 3:4

4). $m = 40 \text{ Kg}$

$v = 4 \text{ m/s}$

E_k

$= \frac{1}{2} m \times v^2$

$= \frac{1}{2} 40 \times 4^2$

$= 20 \times 16$

$= 320 \text{ J}$

5). $E_k = 40 \text{ J}$

$v = 4 \text{ m/s}$

m

$= E_k : \frac{1}{2} \times v^2$

$= 40 : \frac{1}{2} \times 16$

$= 40 : 8$

$= 5 \text{ K}$