

No.:

Date:

1) dik: $m = 1 \text{ kg}$
 $h = 20 \text{ m}$
 $g = 10 \text{ m/s}^2$

dit: a) Energi kinetik di titik A sebesar...?
 b) Besar-energi kinetik bola pada 5m dari tanah?

Peny:

a) Energi kinetik titik A ... ?

$$E_{KA} = 0 //$$

b) Energi kinetik pada 5m diatas tanah.. ?

$$E_m = E_p + E_k$$

$$E_m = E_p$$

$$E_m = m \cdot g \cdot h$$

$$= 1 \times 10 \times 20$$

$$= 200 \text{ J}$$

$$E_m = E_p + E_k$$

$$200 = (1 \times 10 \times 5) + E_k$$

$$200 = 50 + E_k$$

$$200 - 50 = E_k$$

$$150 = E_k //$$

2) dik: Benda dan tempat sama dit: perbandingan energi yang dibutuhkan.. ?

$$h_1 (\text{Lantai}) = 0,5 \text{ m}$$

$$h_2 (\text{Lantai}) = 1 \text{ m}$$

$$h_3 (\text{Lantai}) = 2 \text{ m}$$

Peny:

$$E_{p1} : E_{p2} : E_{p3}$$

$$m \cdot g \cdot h : m \cdot g \cdot h : m \cdot g \cdot h$$

$$\begin{array}{ccc} m \cdot 10 \cdot 0,5 & : & m \cdot 10 \cdot 1 & : & m \cdot 10 \cdot 2 \\ 5 & : & 10 & : & 20 \end{array} : 5$$

$$1 : 2 : 4 //$$

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3)

dik:

$$m(\text{terdapat barang}) = 5 \text{ ton}$$

$$m(\text{tidak terdapat barang}) = 10000 \text{ kg}$$

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

$$h = 2,5 \text{ m}$$

dit:

$$W \dots ?$$

peng:

$$W = E_p = m \cdot g \cdot h$$

$$= (5 \text{ ton} + 10000 \text{ kg}) (10) (2,5)$$

$$= (5000 \text{ kg} + 10000 \text{ kg}) (10) (2,5)$$

$$= (6000) (10) (2,5)$$

$$= 150.000 \text{ Joule//}$$