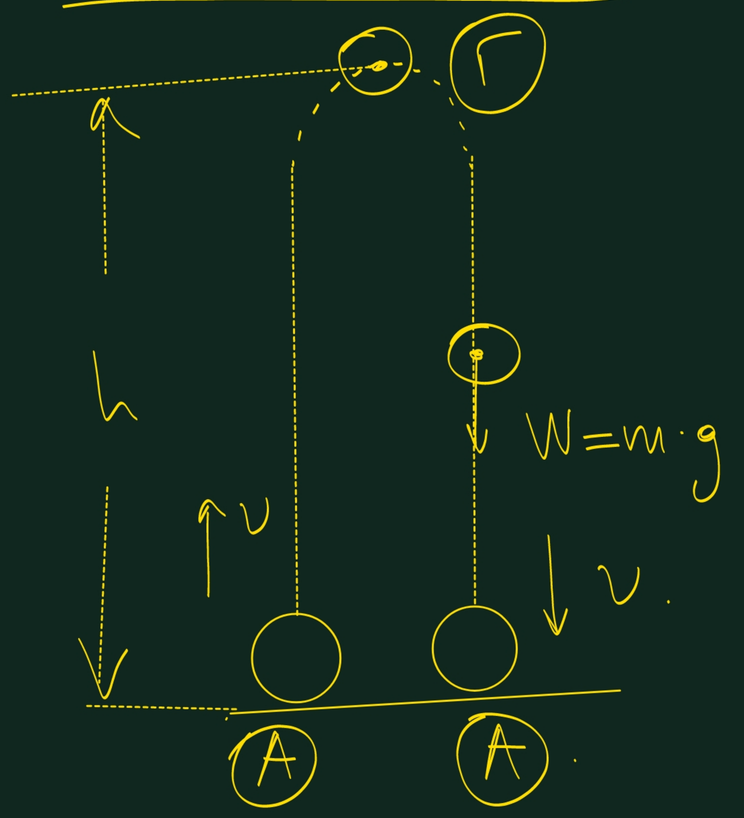
Εφαρμογή σελ. 168.



ΘΜΚΕ: Γ → Α.

$\Delta K = \Sigma W \Rightarrow$

$K_A - K_\Gamma = W_W \Rightarrow$

$K - 0 = m \cdot g \cdot h \Rightarrow$

$K = 1 \cdot 10 \cdot 2 \Rightarrow$

$K = 20$ Joule

$K = \frac{1}{2} \cdot m \cdot \upsilon^2 \Rightarrow$

$20 = \frac{1}{2} \cdot 1 \cdot \upsilon^2 \Rightarrow$

$\upsilon^2 = 40 \Rightarrow \upsilon = \sqrt{40}$ m/s.

Αν $h' = 4$m τότε:

$K' = m \cdot g \cdot h' = 1 \cdot 10 \cdot 4 = 40$ Joule.

και: $K' = \frac{1}{2} \cdot m \cdot \upsilon'^2 \Rightarrow$

$40 = \frac{1}{2} \cdot 1 \cdot \upsilon'^2 \Rightarrow \upsilon' = \sqrt{80}$ m/s

$\frac{\upsilon'}{\upsilon} = \frac{\sqrt{80}}{\sqrt{40}} = \sqrt{2}$