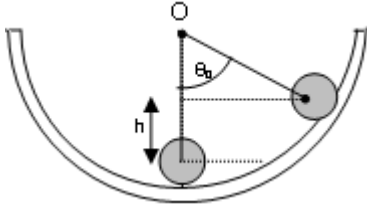


حل التمرين 08



Mohammed Sobhi

$$W(\vec{P}) = mgh$$

$$= mg((R-r) - (R-r)\cos\theta_0)$$

$$\Rightarrow W(\vec{P}) = mg(R-r)(1 - \cos\theta_0)$$

$$\rho = \frac{m}{V} \Rightarrow m = \rho.V$$

$$W(\vec{P}) = \rho V g (R-r)(1 - \cos\theta_0)$$

$$W(\vec{P}) = \rho \frac{4}{3} \pi r^3 g (R-r)(1 - \cos\theta_0)$$

$$W(\vec{P}) = \rho \frac{4}{3} \pi r^3 g (R-r)(1 - \cos\theta_0)$$

تطبيق عددي :

$$W(\vec{P}) = 8.10^3 \times \frac{4}{3} \pi \times (1.10^{-2})^3 \times 9,8 \times (10-1) \cdot 10^{-2} \times (1 - \cos 50^\circ)$$

$$W(\vec{P}) = 1,05.10^{-2} J$$

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