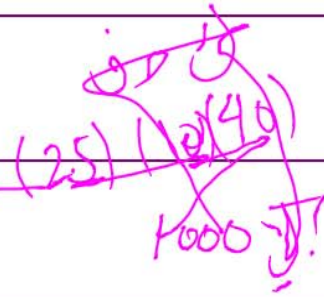


Conceptual



$v_{\text{top}} = 0$

$mgh$



$$\frac{1}{2}mv^2 \quad \int 1000 = \left\{ \frac{1}{2} \right\}$$

$$\left( \frac{1}{2} \right) = \left( \frac{1}{2} \right) \left( \frac{1}{2} \right)$$

$$E_i = E_f$$

$$mgh + \frac{1}{2}m \cancel{0}^2 = m \cancel{g} \times 0 + \frac{1}{2}mv^2$$

$$\sqrt{2mgh} = \frac{1}{2}mv^2$$

$$v = \sqrt{2gh} = \sqrt{2 \times 9.8 \times 2.5} = \sqrt{49} = 7 \text{ m/s}$$