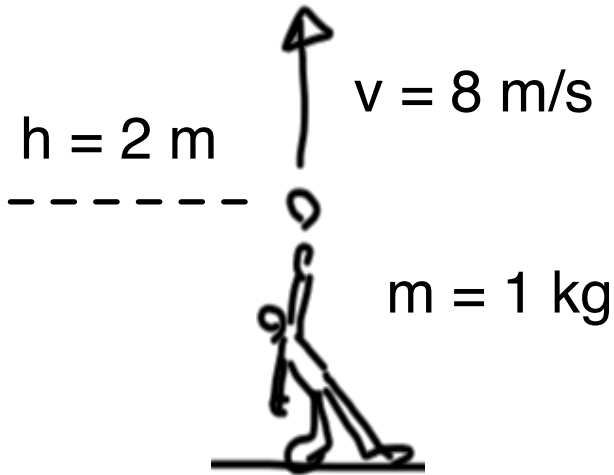


## D4: Total Mechanical E 2

$$KE = \left(\frac{m}{2}\right)(v^2)$$

$$GPE = mgh \\ = (\text{kg})(10)(\text{meters})$$



1. The player throws a 1 kg ball upward at 8 m/s. Find Total Mechanical Energy

TME: **52 J**

KE

+

GPE

**32 J**

**20 J**

*For KE use the formula:*

$$KE = \left(\frac{1 \text{ kg}}{2}\right)(8^2) \\ = \left(\frac{1}{2}\right)(64) \\ = 32 \text{ J}$$

*For GPE use the formula:*

$$GPE = mgh \\ = (1 \text{ kg})(10)(2 \text{ m}) \\ = 20 \text{ J}$$