

A hockey puck has a mass of 210 g. If the hockey puck has 73 J of kinetic energy, what is its speed?

Solution.

$$m = 210\text{g} = 0.210\text{kg}, E_k = 73\text{J};$$

$$v = ?$$

The kinetic energy:

$$E_k = \frac{mv^2}{2};$$

$$v = \sqrt{\frac{2E_k}{m}}.$$

$$v = \sqrt{\frac{2 \cdot 73}{0.210}} = 23.4 \left(\frac{\text{m}}{\text{s}}\right).$$

Answer: $v = 23.4 \frac{\text{m}}{\text{s}}$.