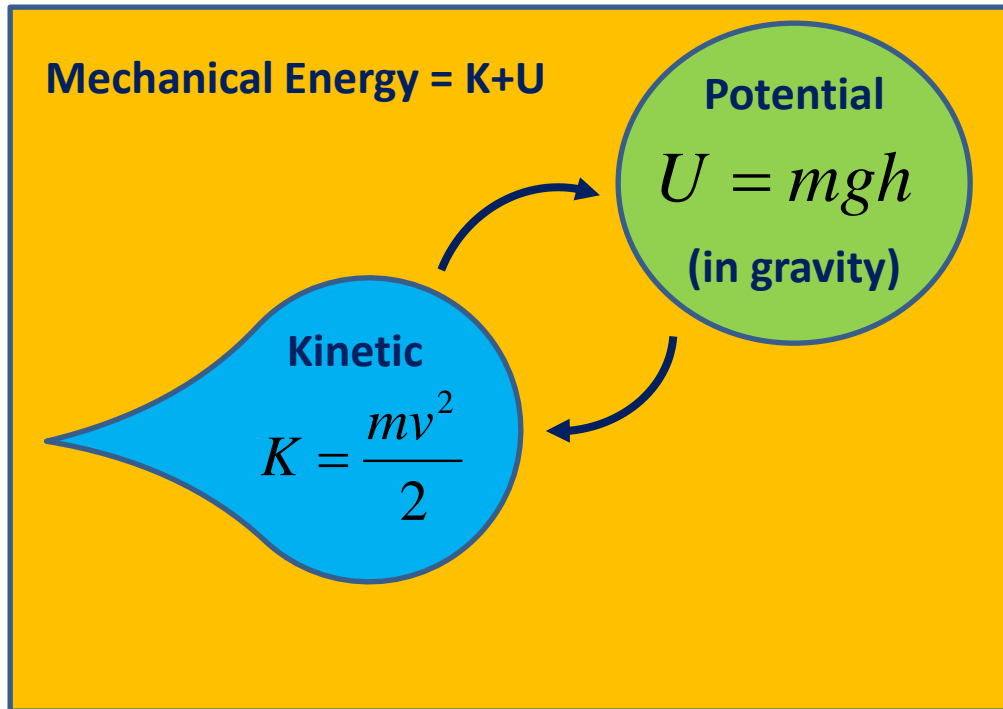


# Mechanical Energy



Unit of Energy is called Joule (J)

$$1J = 1N \cdot m = 1 \frac{kg \cdot m^2}{s^2}$$

# Homework 13

## Problem.

A ball of mass 2 kg is falling from height 1.8 meters.

1) With what speed will it hit the floor?

After hitting the floor the ball bounces back with speed 4 m/s.

2) What fraction of ball's mechanical energy was lost in the collision with the floor?

3) What maximal height will the ball reach after bouncing back?

4)\* Do any of the above answers depend on the mass of the ball?

