Conservation of Energy Review

- Solving problems using energy:
  - Find a "before" and "after"
  - Identify the forces
    - Use potential energy for conservative forces
    - Find work for everything else (usually zero or friction)
  - Change in kinetic plus change in potential is energy entering/leaving system via other forces

$$\Delta K + \Delta U = W_{other}$$

$$K_f + U_f = K_0 + U_0 + W_{other}$$

  - Solve for missing variable (usually speed or position)

$$K = \frac{1}{2} m v^2 \qquad U_{sp} = \frac{1}{2} k x^2 \qquad U_g = m g y$$