Chapter 14-2: Using Machines

- Machine
  - Changing Force
    - Input Force
    - Output Force
    - Mechanical Advantage

      $$MA = \frac{F_{out}}{F_{in}}$$

    - Calculating Mechanical Advantage: To pry off the lid of a paint can, you apply a force of 50N to the handle of the screwdriver. What is the mechanical advantage of the screwdriver if it applies a force of 500N to the can?
  - Changing Distance

- Efficiency

  $$eff = \frac{W_{out}}{W_{in}}$$

  - Calculating Efficiency: Using a pulley, a crew does 7,500J of work in order to load a box that only requires 4,500J of work. What is the efficiency of this system?
  - Friction
  - Friction and Efficiency

Homework: Chapter 14-2 (p416) # 1-7