

**Homework 3.6-** Rearranging equations (and some review problems)

1. Rearrange the kinetic energy equation for the mass, m.

$$E_k = \frac{1}{2}mv^2$$

2. Rearrange this kinematics equation for the displacement,  $\Delta d$ .

$$(v_2)^2 = (v_1)^2 + 2a\Delta d$$

3. Rearrange the molar concentration formula for the volume, V.

$$c = \frac{n}{V}$$

4. Rearrange the density equation to solve for volume, V

$$d = \frac{m}{V}$$

5. Simplify:  $\frac{3x^3}{4x^8}(2x^4)^3$

6. Solve for x:  $\frac{3x-2}{5} = \frac{-x+4}{2}$