

Name: \_\_\_\_\_

## Exam 1 Equations (Chapters 10-11)

$$q = mC\Delta T$$

$$\ln P_{vap} = \frac{-\Delta H_{vap}}{R} \left( \frac{1}{T} \right) + \ln \alpha$$

$$l = \sqrt{8}r$$

$$l = 2r$$

$$P_A = \chi_A P_A^*$$

$$\Delta T_b = K_b m$$

$$\Delta T_f = K_f m$$

$$q = n\Delta H_{fus, sub, or vap}$$

$$\ln \frac{P_2}{P_1} = \frac{-\Delta H_{vap}}{R} \left( \frac{1}{T_2} - \frac{1}{T_1} \right)$$

$$l = \frac{4}{\sqrt{3}}r$$

$$C_{gas} = k_{H,gas} P_{gas}$$

$$P_{total} = \sum_{i=gas} \chi_i P_i^*$$

$$\Pi = \frac{inRT}{V} = iC_{molar}RT$$