

CHEM 121O (Rowley)

Exam 2 (Chapters 3-4) Spring 2026

Formulas

$$C_1 V_1 = C_2 V_2$$

$$\%m/m = \frac{m_A}{m_{total}} 100\%$$

$$\%v/v = \frac{V_A}{V_{solution}} 100\%$$

$$\%Yield = \frac{actual\ yield}{theoretical\ yield} 100\%$$

$$\frac{C_A V_A}{\nu_A} = \frac{C_T V_T}{\nu_T}$$

$$\%m/v = \frac{g_A}{V_{solution}} 100\%$$

$$ppm = \frac{m_A}{m_{total}} 10^6 ppm$$

$$ppb = \frac{m_A}{m_{total}} 10^9 ppb$$

Constants

$$R = 8.314 \frac{J}{mol\ K}$$

$$R = 0.08206 \frac{L\ atm}{mol\ K}$$

Periodic Table of the Elements