

Charles' Law Worksheet

$$\textcircled{1} \quad \frac{V_1}{T_1} = \frac{V_2}{T_2}$$

$$89^\circ\text{C} + 273 = 362 \text{ K}$$

$$\frac{0.67 \text{ L}}{362 \text{ K}} = \frac{1.12 \text{ L}}{T_2}$$

$$T = 605.13 \text{ K}$$

$$605.13 \text{ K} - 273 = \underline{332^\circ\text{C}}$$

$$\textcircled{2} \quad 80.0^\circ\text{C} + 273 = 353 \text{ K}$$

$$30.0^\circ\text{C} + 273 = 303 \text{ K}$$

$$\frac{V_1}{T_1} = \frac{V_2}{T_2}$$

$$\frac{3.00 \text{ L}}{353 \text{ K}} = \frac{V_2}{303 \text{ K}}$$

$$\underline{V = 2.58 \text{ L}}$$

$$\textcircled{3} \quad 25^\circ\text{C} + 273 = 298 \text{ K}$$

$$0^\circ\text{C} + 273 = 273 \text{ K}$$

$$\frac{V_1}{T_1} = \frac{V_2}{T_2}$$

$$\frac{0.620 \text{ L}}{298 \text{ K}} = \frac{V}{273 \text{ K}}$$

$$\underline{V = 0.55 \text{ L}}$$