

GAS LAWS

NAME _____

SECTION _____

1. For pairs 1–3, fill in the blanks (calculate the value of the variables and identify which law applies), circle the correct relationship, and complete the diagrams for Questions 2 and 3.

1)

Initial:
 $P = 5 \text{ atm}$
 $T = 50 \text{ }^\circ\text{C}$
 $V = 10 \text{ L}$

Final:
 $P = \underline{\hspace{2cm}}$
 $T = 25 \text{ }^\circ\text{C}$
 $V = 10 \text{ L}$
 Direct or inverse relationship?

Law: _____

2)

Initial:
 $P = 10 \text{ atm}$
 $T = 20 \text{ }^\circ\text{C}$
 $V = 5 \text{ L}$

Final:
 $P = 10 \text{ atm}$
 $T = \underline{\hspace{2cm}}$
 $V = 20 \text{ L}$
 Direct or inverse relationship?

Law: _____

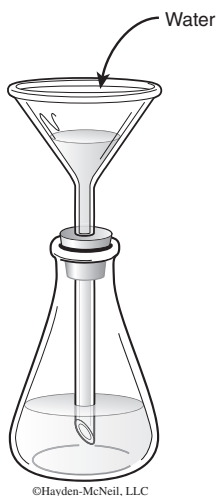
3)

Initial:
 $P = 10 \text{ atm}$
 $T = 100 \text{ }^\circ\text{C}$
 $V = 2 \text{ L}$

Final:
 $P = 20 \text{ atm}$
 $T = 100 \text{ }^\circ\text{C}$
 $V = \underline{\hspace{2cm}}$
 Direct or inverse relationship?

Law: _____

2. In the figure below, an Erlenmeyer flask is tightly closed by a rubber stopper containing a funnel. If we pour water into the funnel slowly, the water easily enters the Erlenmeyer flask. However, when the water level inside the flask reaches the foot of the funnel, it is no longer easy to add water. **Can you explain in your own words why this happens?**



3. The label of an aerosol can below says “Pressurized container. Protect against sunlight and do not expose to temperature exceeding 50 °C.” **Explain the reasons for this warning.**

