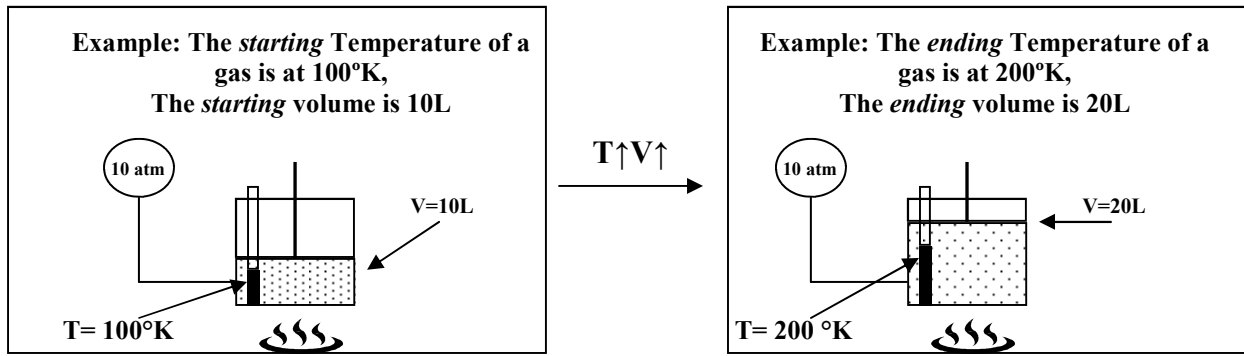


Name _____
 Period _____

CHARLES LAW states that.....

When the Pressure of a gas is *constant* (stays the same), the Temperature of a gas will be directly related to the volume.

Meaning: What ever happens to temperature the exact thing happens to volume mathematically (&Vice Versa).



EQUATION

$$V_1 T_2 = V_2 T_1$$

Starting Volume *divided* by starting temperature *equals* Final Volume *divided* by final temperature

Example: $V_1 = 20L$ $T_1 = 200^\circ K$ $V_2 = 10L$ $T_2 = ?$

Multiply Both sides

To get "x" by itself divide out the 20 from both sides

PLUG IN WHAT YOU KNOW Use "x" for what you do Not know

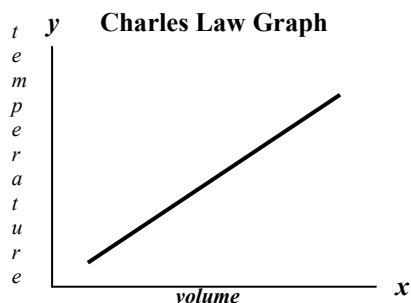
$$20x = 10(200)$$

$$20x = 2000$$

$$20x/20 = 2000/20$$

$$X = 100^\circ K$$

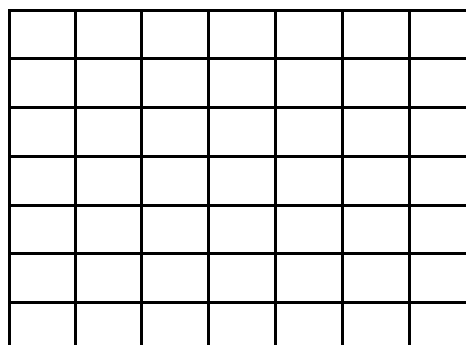
The Volume was cut in half so temperature was _____

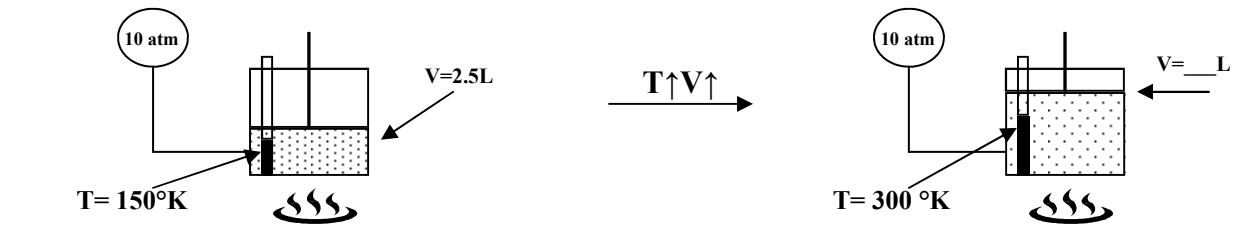
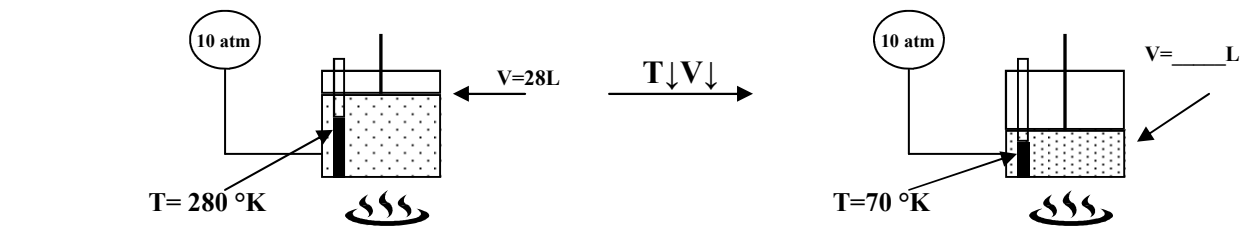
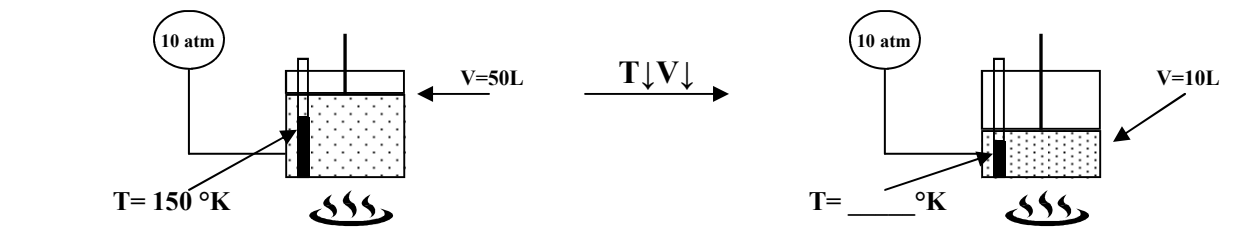
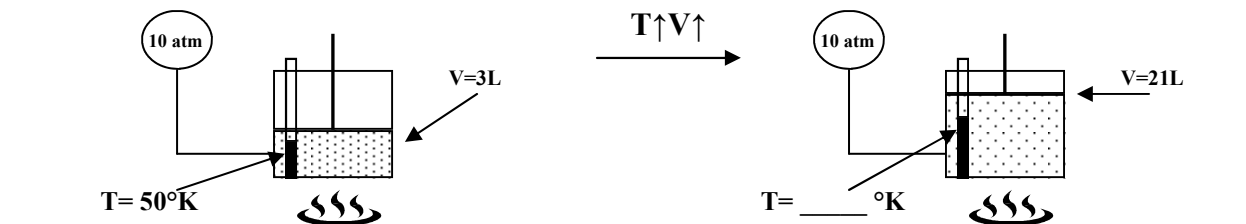
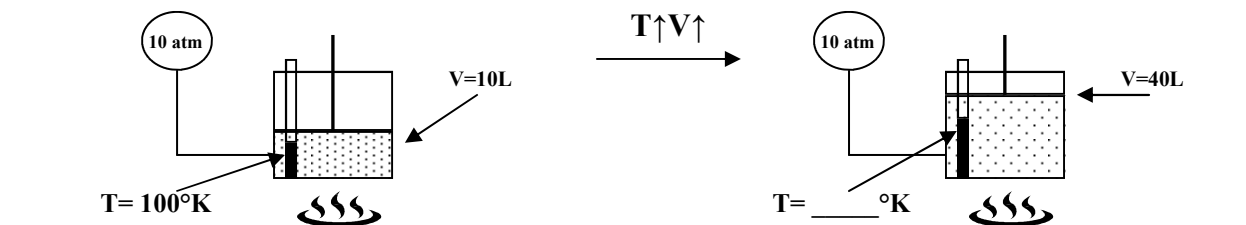


A graph of Charles law will plot the Temperature (y) over the Volume (x). Because the relationship is *direct*, a higher temperature will yield a high volume and a low temperature will yield a low volume

Below is sample data from a Charles Law experiment. Title, label and plot the points on the grid. Be sure you pick correct labels and *logical* intervals.

Temperature(K)	Volume (L)
100	10
150	20
200	30
250	40
300	60





Write and Solve your own Charles Law Problem:

