Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Charles's Law Practice

**V1/T1 = V2/T2**

Directions: Work each problem on this worksheet. Put your final answer in the blank beside the number. You must show work to receive full credit.

\_\_\_\_\_\_\_\_\_\_\_\_1. A 250.0 mL gas sample is at 10.0°C. What will the new volume be if the temperature changes to 60.0°C?

\_\_\_\_\_\_\_\_\_\_\_\_2. A 75.0 mL gas sample is at 20.0°C. What will the new volume be if the temperature changes to -10.0°C?

\_\_\_\_\_\_\_\_\_\_\_\_3. A 560 mL gas sample is at 120.0°C. What will the new temperature be if the volume changes to 400.0 mL?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_4. A 45.0 mL gas sample is at 49°C. What will the new volume be at

-29°C?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_5. A 270.0 mL gas sample at STP experiences a temperature change to 25°C. Assuming a constant pressure, what is the new volume?