Gas Law Worksheet 1

$\frac{P_1V_1}{T_1} = \frac{P_2V_2}{T_2}$ Name of equation:_____

$PV = nRT$ Name of equation:_____

Write the equation used to convert from Celsius degrees to Kelvin: _____

Write down the values of standard temperature and pressure (STP):

1. Rewrite the combined gas law as if you are solving for P_2.

   $P_2 =$

2. Rewrite the combined gas law as if you are solving for V_1.

   $V_1 =$

3. Rewrite the ideal gas law as if you are solving for n.

   $n =$

4. Rewrite the ideal gas law as if you are solving for V.

   $V =$

5. Write down two reasonable values for R:

Questions 6 - 12. Write down all variables and what values you are given for them. Indicate which variable you are solving for. Also write down the general equation.

6. Solve for the final volume given: The gas inside of a flexible container at 25°C has a pressure of 0.25 atm. The size of the container starts out holding 3 L of gas. When it is heated to 30°C, its pressure is also increased to 0.27 atm. What happened to the volume of the container?

$P_1=$ $P_2=$
$V_1=$ $V_2=$
$T_1=$ $T_2=$