Gas Law Worksheet Answer Details

1. A cylinder of argon gas contains 50.0 L of Ar at 18.4 atm and 127 °C.
How many moles of argon are in the cylinder?

Use Gas Law equation
PV = nRT
where:
P = pressure
V = volume
n = number of moles of gas
R = gas constant = 0.08 atm L/mol

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

T = absolute temperature

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
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.
size of the container starts out holding 3 L of gas. When it is heated to 30°C, its pressure is also increased t
0.27 atm. What happened to the volume of the container?

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

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