

7) Use Boyle's Law to solve for the missing value. SHOW YOUR CALCULATION!

$$P_1 = ? \quad V_1 = 2.4 \times 10^5 \text{ L} \quad P_2 = 180 \text{ mm Hg} \quad V_2 = 1.8 \times 10^3 \text{ L}$$

8) A balloon is filled to a volume of 60 L and is under 1.08 atm of pressure. If you decrease the pressure to 0.51 atm, what will the volume be? SHOW YOUR CALCULATION!

9) A sample of helium gas has a volume of 200.0 mL at 0.960 atm. What pressure, in atmospheres, is needed to reduce the volume to 50.0 mL? SHOW YOUR CALCULATION!

10) A weather balloon at Earth's surface has a volume of 4.00 L and is under a pressure of 755 mm Hg. When the balloon is released it floats up into the air and the pressure it is under changes to 728 mm Hg. What is the new volume? Why does the pressure change when the balloon gets higher? SHOW YOUR CALCULATION!