NAME: **HONORS CHEMISTRY**

SECTION: KMT and Pressure Conversions

Memorize the following conversions between pressure units:

760 mm Hg = 1 atm = 101.3 kPa = 760 torr

Read Sections 13.1 and 13.8 in your textbook

1. How does a gas exert pressure?
2. List two devices that can be used to measure gas pressure.
3. What do we assume about the volume of the actual molecules themselves in a sample of gas, compared to the overall total volume of the gas? Why?
4. Complete the following statements.
   1. Termperature is a measure of the average \_\_\_\_\_\_\_\_ of the molecules in a sample of gas.
   2. The kinetic molecular theory states that gas particles exert \_\_\_\_\_ attractive or repulsive forces on each other.

Complete the following calculations. Show all your work

1. Convert 54.2 kPa to atmospheres.
2. A gas exerts a pressure of 702 torr. What is this pressure in kilopascals?
3. Convert 11.9 psi to kilopascals.
4. The barometric pressure was recorded as 745 mm Hg. What is the pressure in atmospheres?

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