

**Pressure Units and Conversions**  
**Dr. Slotsky Chem II**

- 1) How many Pascals are in a kilopascal?
- 2) What pressure in Pascals is exerted if a force of 400.0 Newtons is applied over an area of 4.0 square meters?
- 3) The critical pressure of CO<sub>2</sub> is 72.7 atm. What is this value in units of Pascals?
- 4) The vapor pressure of water at 50.0 C is 12.33 kPa. What is this value in millimeters of mercury (mmHg)?
- 5) In thermodynamics, the standard pressure is 100.0 kPa. What is this value in units of atmospheres (atm)?
- 6) **[HONORS]** A tire is inflated to a gauge pressure of 30.0 psi (Which must be added to the atmospheric pressure of 14.7 psi to find the total pressure in the tire). Calculate the total pressure in the tire in Pascals.