

Section 16A – Pressure

- 1) List 5 compounds that are gasses at room temperature, but those five should not come from the list provided in class.
- 2) List five physical characteristics of a gas
- 3) Why was mercury used in a barometer and not water?
- 4) How can length (mmHg) be used as a measurement of pressure?
- 5) What is the different between a gas and a vapor?

6) Perform the following conversions

1.25 atm	550 mmHg	8.00×10^{-2} atm	6.33×10^3 mmHg
7.60×10^2 mmHg	0.75 atm	175 mmHg	9.60 atm
2.0 atm	50.0 mmHg	0.00125 atm	5.60×10^4 mmHg

Activity

Whenever there is a change in weather there is a change in barometric pressure. Using a device connected to the internet look up the current weather situation in the greater Detroit area and answer the following questions.

- 1) Convert the barometric pressure to the following units:

bar	atm	psi	mmHg	Pa	kPa
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- 2) Why is it that a low pressure system indicates precipitation is on the way and high pressure indicates sunny days?
- 3) What is increasing in the air as the barometric pressure decreases? Why do you think the air pressure decreases as this increases in the atmosphere?