Pressure Units

Manometers

- Pressures of gas samples are routinely measured with a

I

Boyle's Law

- For a fixed amount of gas at constant temperature, volume is inversely proportional to pressure.

$$V \% 1/P$$

$$V = b/P \qquad VP = b \qquad b = f\,($$

V % —

Combined Gas Law Equation
to

Ideal Gas Law

$$PV = nRT$$

$R = 0.08206$ L·atm/K·mol

- R the **gas law constant**

[redacted]

PV '

Gay-Lussac's
Law of Combining Gas Volumes

$V' \; n$

A

called

Gas Law Summary

$$PV = nRT$$

Boyle: V, P variable n, T constant

$PV = nRT$ $P_1V_1 = P_2V_2$

Charles: V, T variable n, P constant

$PV = nRT$ V,