**Formulas for the test**

Conversion given: 1 atm = 760 mmHg = 101.3 kPa K = 0C +273

Dalton’s law of partial pressure:

Ptotal = Pa + Pb + Pc + …..

Ideal Gas Law:

PV = nRT R = 0.0821 L atm/ K mol

Combined Gas Law:

$$\frac{P1V1}{n1T1}= \frac{P2V2}{n2T2}$$

Gas Laws:

Boyle’s: $P\_{1}V\_{1}=P\_{2}V\_{2}$

Charles’: $\frac{V\_{1}}{T\_{1}}= \frac{V\_{2}}{T\_{2}}$

Gay-Lussac: $\frac{P\_{1}}{T\_{1}}= \frac{P\_{2}}{T\_{2}}$

Avogadro: $\frac{V\_{1}}{n\_{1}}= \frac{V\_{2}}{n\_{2}}$

Graham’s Law of Effusion:

$$\frac{r\_{1}}{r\_{2}}= \sqrt{\frac{M\_{2}}{M\_{1}}}$$