Chemistry: Gas Law Formulas

$$D = \frac{m}{V}$$

$$K = °C + 273$$

$$\frac{P_1V_1}{T_1} = \frac{P_2V_2}{T_2}$$

$$P_{total} = P_1 + P_2 + P_3 + ...$$

$$PV = nRT$$

$$\frac{rate_a}{rate_b} = \sqrt{\frac{M_b}{M_a}}$$

$D = density$
$m = mass$
$V = volume$
$K = Kelvin$
$P = pressure$
$R = gas\ constant$
$T = temperature$
$n = number\ of\ moles$
$r_x = rate\ of\ effusion$
$M = molar mass$

Gas constant (R)

$0.0821\ ^{L \cdot atm}/_{mol \cdot K}$
$8.314\ ^{L \cdot kPa}/_{mol \cdot K}$
$62.4\ ^{L \cdot mmHg}/_{mol \cdot K}$

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