$$\text{Kinetic Energy KE} \quad = \quad \frac{1}{2}mv^2 \quad = \quad \frac{3}{2}kT$$

$$v \quad = \quad \sqrt{\frac{3kT}{m}}$$

$$PV \quad = \quad NkT$$

$$P \quad = \quad (\frac{N}{V})kT \quad = \quad nkT$$