Heisenberg Uncertainty Principle:

$$\Delta p \Delta x \geq \frac{h}{2\pi}$$

Photons

$$E = hf$$
$$p = \frac{h}{\lambda}$$

Photoelectric Effect

$$K = hf - W_o$$

Blackbody Radiation

$$I = \sigma T^4$$
$$f_{peak} = (const)T$$

Hydrogen Atom

$$E_n = \frac{-13.6eV}{n^2}$$
$$L = \sqrt{l(l+1)}\,\frac{h}{2\pi}$$
$$L_z = m_l \frac{h}{2\pi}$$

Electron Spin

$$s = 1/2$$
$$S = \sqrt{s(s+1)}\,\frac{h}{2\pi}$$
$$S_z = m_s \frac{h}{2\pi}$$

Classical Angular Momentum

$$L = I\omega$$
$$I = \sum mr^2$$

Nuclear Fission and Fusion

$$E = \Delta mc^2$$

Radioactive Decay

$$N = N_o e^{-\lambda t}$$
$$A = \lambda N_o e^{-\lambda t}$$
$$\tau_{1/2} = \frac{\ln 2}{\lambda}$$