$$E^2 = (pc)^2 + (mc^2)^2 \tag{1}$$

$$\lambda = \frac{h}{p} \tag{2}$$

$$\lambda_{\max} = \frac{b}{T} \tag{3}$$

$$R_T = \frac{2\pi^5 k^4}{15c^2h^2} AT^4 \tag{4}$$

$$V_0 = \frac{h\nu}{e} - \frac{w_0}{e} \tag{5}$$

$$\lambda' = \lambda + \frac{h}{m_e c}(1 - \cos\theta) \tag{6}$$

$$-\frac{\hbar^2}{2m}\frac{\delta^2\psi}{\delta x^2} + U(x)\psi(x) = E\psi(x) \tag{7}$$

$$E = \frac{h^2}{2mL^2}(n_x^2 + n_y^2 + \dots) \tag{8}$$

$$\langle f(x)\rangle = \int_{-\infty}^{\infty} \psi^* f(x)\psi dx \tag{9}$$

$$\langle Q\rangle = \int_{-\infty}^{\infty} \psi^* \hat{Q}\psi dx \tag{10}$$

$$\hat{p} = -i\hbar\frac{\delta}{\delta x} \tag{11}$$

$$\hat{H} = -\frac{\hbar^2}{2m}\frac{\delta^2}{\delta x^2} + U(x) \tag{12}$$

$$E_n = \left(\frac{1}{2} + n\right)\hbar\omega_0 \tag{13}$$