

$$E = mc^2 \quad (1)$$

$$a_c = -\omega^2 r \quad (2)$$

$$\bar{a} = \frac{\Delta v}{\Delta t} \quad (3)$$

$$\int F dt = \Delta p \quad (4)$$

$$\begin{aligned} P &= IV \\ &= I^2 R \\ &= \frac{V^2}{R} \end{aligned} \quad (5)$$

$$F = k \frac{q_1 q_2}{r^2} \quad (6)$$

$$t' = \frac{t}{\sqrt{1 - v^2/c^2}} \quad (7)$$

$$\begin{aligned} U &= \frac{1}{2} CV^2 \\ &= \frac{1}{2} \frac{Q^2}{C} \\ &= \frac{1}{2} QV \end{aligned} \quad (8)$$

$$F_B = qvB \sin \theta \quad (9)$$

$$\begin{aligned}\frac{1}{R_t} &= \sum \frac{1}{R_i} & (10) \\ &= \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} \dots + \frac{1}{R_n}\end{aligned}$$

$$\phi_B = BA \cos \theta \quad (11)$$

$$\begin{aligned}\frac{\lambda_0}{\lambda} &= \frac{f}{f_0} & (12) \\ &= \sqrt{\frac{1 - v/c}{1 + v/c}}\end{aligned}$$