1)

$$h = \frac{v_0^2 \sin^2 \theta}{2g}$$

2)

$$\Delta y = \tan\theta \Delta x - \frac{g\Delta x^2}{2v_0^2 \cos^2\theta}$$

3)

$$R = \frac{v_0^2 \sin(2\theta)}{g}$$

4)

$$\Delta v^2 = 2a\Delta x$$

5)

$$[G] = \frac{\mathrm{m}^3}{\mathrm{kg}\,\mathrm{s}^2}$$

6)
Electrostatics:

$$\vec{\boldsymbol{\nabla}} \cdot \vec{\boldsymbol{E}} = \frac{\rho}{\epsilon_0} \Leftrightarrow \int \vec{\boldsymbol{E}} \cdot \mathrm{d}\vec{\boldsymbol{a}} = \frac{Q_{\mathrm{enc}}}{\epsilon_0}$$

$$\vec{\boldsymbol{\nabla}} \times \vec{\boldsymbol{E}} = 0 \Leftrightarrow \int \vec{\boldsymbol{E}} \cdot \mathrm{d}\vec{\boldsymbol{l}} = 0$$

Magnetostatics:

$$\vec{\boldsymbol{\nabla}} \cdot \vec{\boldsymbol{B}} = 0 \Leftrightarrow \int \vec{\boldsymbol{B}} \cdot \mathrm{d}\vec{\boldsymbol{a}} = 0$$

$$\vec{\boldsymbol{\nabla}} \times \vec{\boldsymbol{B}} = \mu_0 \vec{\boldsymbol{J}} \Leftrightarrow \int \vec{\boldsymbol{B}} \cdot \mathrm{d}\vec{\boldsymbol{l}} = \mu_0 I_{\mathrm{enc}}$$

7)

$$\text{Poisson}: \ \nabla^2 V = \frac{\rho}{\epsilon_0}$$

$$\text{Laplace}: \ \nabla^2 V = 0$$

8)

$$\vec{\boldsymbol{E}} = \frac{\sigma}{2\epsilon_0}\hat{\boldsymbol{n}}$$

9)

$$\vec{\boldsymbol{E}} = \frac{\lambda}{2\pi\epsilon_0 s}\hat{\boldsymbol{s}}$$

10)

$$\mathrm{d}\vec{\boldsymbol{F}} = I\,\mathrm{d}\vec{\boldsymbol{l}} \times \vec{\boldsymbol{B}}$$

11)

$$\vec{B} = \vec{\nabla} \times \vec{A}$$

12)

$$\text{straight wire}: \ B = \frac{\mu_0 I}{2\pi s}$$

$$\text{solenoid}: \ B = \mu_0 I n$$

$$\text{toroid}: \ B = \frac{\mu_0 I N}{2\pi s}$$

13)

$$R = \frac{mv}{qB}$$

$$\omega = \frac{qB}{m}$$

14)

1. $\tau_{\mathrm{RL}} = \dfrac{L}{R}$
2. $\tau_{\mathrm{RC}} = \dfrac{1}{RC}$
3. $\omega_{\mathrm{res}} = \dfrac{1}{\sqrt{LC}}$