$$EMF = -n\frac{d\varphi}{dt} \qquad dv = dxdydz \qquad dv = r^2\sin(\theta)drd\theta d\phi \qquad \frac{1}{1+x} = 1 - x + x^2 - x^3 \ldots$$

$$\vec{\beta} = -\vec{\nabla}\vec{V} \qquad \vec{\beta} = \frac{\mu_o}{4\pi}\left(\frac{2\vec{M}\cos(\theta)}{r^3}\vec{r} + \frac{\vec{M}\sin(\theta)}{r^3}\vec{\theta}\right) \qquad \tan(I) = 2\cot(\theta)$$

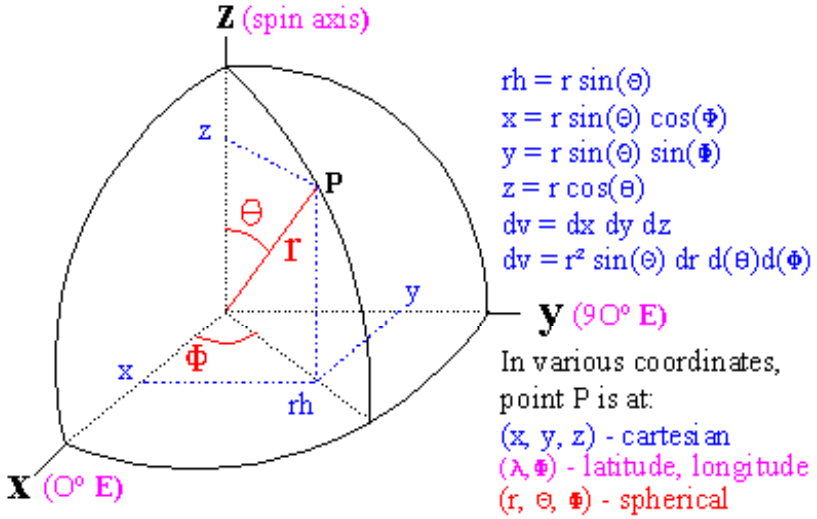
$$\mu o = 4\pi * 10^{-7}\ \frac{h}{m} \qquad \vec{\nabla} = \frac{\partial}{\partial r}\vec{r} + \frac{1}{r}\frac{\partial}{\partial\theta}\vec{\theta} + \frac{1}{r\sin(\theta)}\frac{\partial}{\partial\varphi}\vec{\varphi} \qquad \vec{\nabla} = \frac{\partial}{\partial x}\vec{x} + \frac{\partial}{\partial y}\vec{y} + \frac{\partial}{\partial z}\vec{z}$$

$$f(t) = A\cos(\omega t + \varphi) \qquad F = q\vec{v}\times(\vec{\beta} + \vec{E}) \qquad E = -\vec{m}\bullet\vec{\beta} \qquad \vec{\tau} = \vec{m}\times\vec{\beta} \qquad A^{\nu}B = -B^{\nu}A$$

$$\frac{\sin(a)}{\sin(A)} = \frac{\sin(c)}{\sin(C)} = \frac{\sin(b)}{\sin(B)} \qquad \cos(a) = \cos(b)\bullet\cos(c) + \sin(b)\bullet\sin(c)\bullet\cos(A)$$

$$X(f) = \int_{-\infty}^{\infty} x(t)\ e^{-i2\pi ft}\,dt,$$

$$x(t) = \int_{-\infty}^{\infty} X(f)\ e^{i2\pi ft}\,df$$



$$\left|A(x,y)\right|^2 = \left(\frac{\partial M}{\partial x}\right)^2 + \left(\frac{\partial M}{\partial y}\right)^2 + \left(\frac{\partial M}{\partial z}\right)^2 \qquad \left|H(x,y)\right| = \sqrt{\left(\frac{\partial M}{\partial x}\right)^2 + \left(\frac{\partial M}{\partial y}\right)^2}$$

$$\kappa(h) = \frac{1}{\left|A(h)\right|^2}\left(\frac{\partial^2 M}{\partial h\partial z}\frac{\partial M}{\partial h} - \frac{\partial^2 M}{\partial h^2}\frac{\partial M}{\partial z}\right)$$