$$\nabla \times E = -\dot{B}$$

$$\nabla \times (\nabla \times E) = -\nabla \times \dot{B} = -\frac{\ddot{E}}{c^2}$$

$$= \underset{\underset{0}{\shortparallel}}{\nabla(\nabla \cdot E)} - \Delta E = -\nabla^2 E$$

$$\frac{\ddot{E}}{c^2} - \Delta E = 0$$

$$\Delta E = \frac{\ddot{E}}{c^2}$$

$$\nabla \times (\nabla \times B) = \nabla \times \frac{\dot{E}}{c^2} = -\frac{\ddot{B}}{c^2}$$

$$\shortparallel$$

$$\underset{\underset{0}{\shortparallel}}{\nabla(\nabla \cdot B)} - \Delta B = -\Delta B$$

$$\ddot{B} - \Delta B = 0$$

$$\theta(y) = \begin{cases} 0 & y < 0 \\ 1 & y > 0 \end{cases}$$

$$\frac{1}{2\pi i} \int_{-\infty}^{\infty} e^{iyx} \frac{dx}{x - i\epsilon}$$

$$\frac{dx}{x} + \frac{2v\,dv}{1+v^2} = 0$$

$$\frac{d \log \alpha}{dx} = r(x)$$

$$\log \alpha(x) = \int_{x_0}^{x} r(x')\,dx'$$

$-\log \alpha(x_0)$

$$\log \frac{\alpha(x)}{\alpha(x_0)} = \int_{x_0}^{x} r(r')\,dx'$$

$$\frac{\alpha(x)}{\alpha(x_0)} = e^{\int_{x_0}^{x} r(x')\,dx'}$$

$$v(t) = e^{-\int_{t_0}^{t} \frac{b}{m} dt'}$$

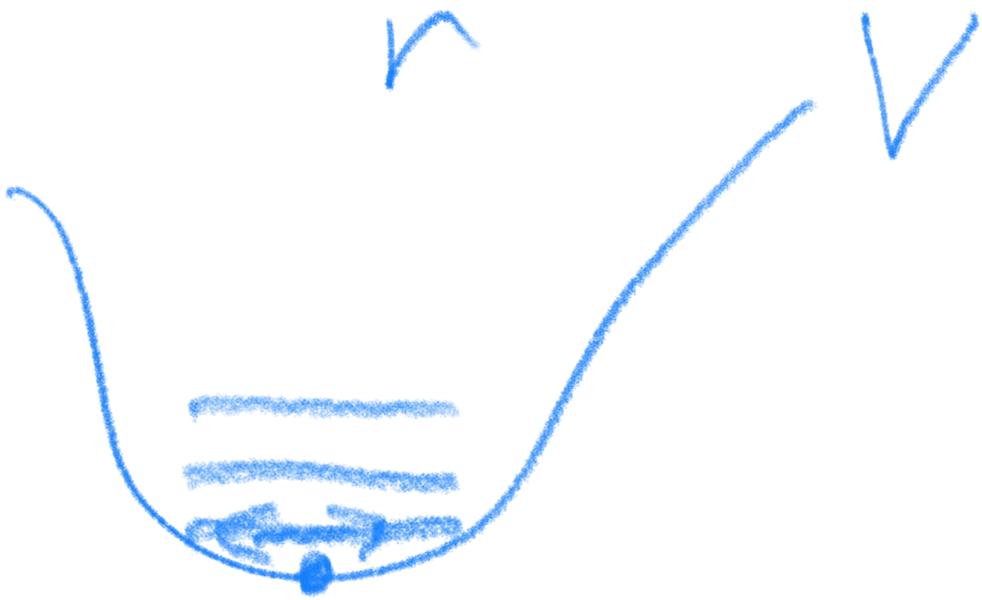
$$\times \left[v(t_0) + \int_{t_0}^{t} e^{\frac{b}{m}(t'-t_0)} g \, dt' \right]$$

$$= e^{-\frac{b}{m}(t-t_0)} \left[v(t_0) + g e^{-\frac{bt_0}{m}} \frac{m}{b} e^{\frac{b}{m}(t-t_0)} \right]$$

$$\rho \frac{r^3}{r^2} = \rho r \to 0$$

as $r \to 0$

$$V = -\frac{e^2}{r}$$



$$\sum_{n=0}^{\infty} \beta_n x^{r+n} = 0$$

set $x = 0$, $\beta_0 = 0$

$r+n-$

$$\sum_{n=1}^{\infty} \beta_n (r+n) x^{\cdot}$$

$$\beta_1 = 0$$

etc.

$$\sum_{n=2}^{\infty} \beta_n (r+n)(r+n-1) x^{r+n-2}$$

$$\sum_{n=0}^{\infty} \beta_{r+n} x^{r+n} = 0$$

$$\sum_{n=0}^{\infty} (r+n)(r+n-1) \cdots (r+n-r+1) \beta x^{n} = 0$$

$$\beta_{r+n}$$

$$\cancel{\beta_0 = 0,} \quad \beta_{r+n} = 0$$

$$\sum_{n=0}^{\infty} (r+n)\cdots n\,\beta_{r+n}\, x^{n-1} = 0$$

$$\beta_{r+1} = 0$$

$$\beta_{r+2} = 0 \text{ etc.}$$