$$X = Acos(\omega t + \varphi)$$

$$ar{E}_k = rac{1}{4} m A^2 \omega^2$$

$$ar{E}_p = rac{1}{4} k A^2$$

$$y = Acos[\omega(t\pm rac{x}{u}) + arphi]$$

$$u=rac{\lambda}{T}$$

$$T = \frac{2\pi}{\omega}$$

$$dW =
ho dv A^2 \omega^2 sin^2 [\omega(t-rac{x}{u})+arphi]$$

$$ar{\omega}=rac{1}{2}
ho A^2\omega^2$$

$$I=rac{1}{2}
ho A^2\omega^2 u$$

$$w=rac{1}{u}EH$$

$$y=2Acos(rac{2\pi x}{\lambda})cos(\omega t)$$

$$y_1 = Acos(\omega t - rac{2\pi x}{\lambda} + arphi_1)$$

$$y_2 = Acos(\omega t - rac{2\pi x}{\lambda} + arphi_2)$$

$$y_1p=y_2p$$

 $(有半波损失 + \pi)$

$$\delta = \frac{xd}{D}$$

$$\Delta x = \frac{\lambda D}{d}$$

$$\delta = 2ne + \frac{1}{2}\lambda$$

 $(有半波损失要加上<math>\frac{1}{2}\lambda)$

$$L=rac{\lambda}{2n heta}$$

加强,有半波损失, $d_{min}=rac{\lambda}{4n}$

$$rac{nr^2}{R}=k\lambda$$

(对于暗纹)

$$2\Delta d=N\lambda$$

$$\Delta x = f \frac{\lambda}{a}$$

$$\left\{ egin{aligned} (a+b)sin heta &= \pm k\lambda \ asin heta &= \pm k'\lambda \end{aligned}
ight.$$

$$tani_B = rac{n_2}{n_1}$$

$$egin{cases} x' = rac{x-vt}{\sqrt{1-rac{v^2}{c^2}}} \ y' = y \ z' = z \ t' = rac{t-rac{v}{c^2}x}{\sqrt{1-rac{v^2}{c^2}}} \end{cases}$$

$$\Delta t = rac{\Delta t'}{\sqrt{1-rac{v^2}{c^2}}}$$

$$\Delta x = \Delta x' \sqrt{1 - rac{v^2}{c^2}}$$

$$m=rac{m_0}{\sqrt{1-rac{v^2}{c^2}}}$$

$$E_k = mc^2 - m_0c^2$$

$$e = \sigma T^4$$

$$\lambda_m = rac{b}{T}$$

$$E_k = h
u - w_0$$

$$w_0 = h \nu_0$$

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

$$\lambda_c = rac{h}{m_0 c}$$

$$\Delta \lambda = 2 \lambda_c sin^2 rac{ heta}{2}$$

$$u = \frac{E}{h}$$

$$\frac{1}{\lambda} = R(\frac{1}{n^2} - \frac{1}{m^2})$$

$$l:0\;h-1|\;m_l:0\;\pm l\;|m_s:\pm \frac{1}{2}$$

$$cosx + cosy = 2cos\frac{x+y}{2}cos\frac{x-y}{2}$$