2.1 Waves

$f = T^{-1}$	Frequency = Period Time of Wave $^{-1}$
$v=f\lambda$	Velocity = Frequency x Wavelength

Video Help

Everything about waves

2.2 Refraction

$n = (\sin i)\div(\sin r)$	Refractive Index = (*sin* [Incident Ray])÷(*sin* [Refracted Ray])
$n =(c1)\div(c2)$	Refractive Index = (Velocity Before Refraction)÷(Velocity After Refraction)
$\sin c = n^{-1}$	*sin* (Critical Angle) = Refractive Index $^{-1}$

Video Help

Refraction and Snell's Law

Total Internal Reflection

Lenses

$f^{-1}=u^{-1}+v^{-1}$	(Focal Length)$^{-1}$ = (Object Distance)$^{-1}$+(Image Distance)$^{-1}$
$f^{-1}=P^{**}$	(Focal Length)$^{-1}$ = Power of Lens
$m= (hi)\div(ho)$	Magnification = (Height of Image)÷(Height of Object
$m= (v)\div(u)$	Magnification = (Image Distance)÷(Object Distance)

Video Help

Diverging Lenses

Converging Lenses

Lens Equation

Myopia and Hyper Metropia

2.4 Superposition, Interference and Diffraction

$\lambda=(ay)\div d$	Wavelength = Slit Separation x Fringe Separation ÷ Distance to Screen
$d\sin\theta=n\lambda$	(Slit Spacing)*sin*(Angle From Centre) = (Order of Maxima) x Wavelength

Video Help

Standing Waves on String

Standing Waves in Air Column

Young's Double Slit Experiment

Diffraction

Single Slit Diffraction