

Additional Formula Sheet

Formulas	Variables	Variables continued & Constants	Picture (Visualization)
example $F = \frac{kq_1q_2}{r^2}$	F : electric force q_1 : charge 1; q_2 : charge 2 r : separation distance	$k : 8.99 \times 10^9 \text{ Nm}^2/\text{C}^2$	
$\sin \theta = m \frac{\lambda}{d} \quad m = 0, 1, 2, 3, \dots$			
$\sin \theta = \left(m + \frac{1}{2} \right) \frac{\lambda}{d} \quad m = 0, 1, 2, 3, \dots$			
$\lambda_{\text{film}} = \frac{\lambda_{\text{vacuum}}}{n}$			
$2t = \left(m + \frac{1}{2} \right) \lambda_{\text{film}} \quad (m = 0, 1, 2, \dots)$			
$2t = m \lambda_{\text{film}} \quad (m = 0, 1, 2, \dots)$			
$\sin \theta = m \frac{\lambda}{a} \quad m = \pm 1, \pm 2, \pm 3, \dots$			
$I = I_0 \cos^2 \theta$			
$\tan \theta_B = \frac{n_2}{n_1}$			