

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 | $k : 8.99 \times 10^9 \text{ Nm}^2/\text{C}^2$ | |
| $\sin \theta = m \frac{\lambda}{d} \quad m = 0, 1, 2, 3, \dots$ | | | |
| $\sin \theta = \left(m + \frac{1}{2} \right) \frac{\lambda}{d} \quad m = 0, 1, 2, 3, \dots$ | | | |
| $\lambda_{\text{film}} = \frac{\lambda_{\text{vacuum}}}{n}$ | | | |
| $2t = \left(m + \frac{1}{2} \right) \lambda_{\text{film}} \quad (m = 0, 1, 2, \dots)$ | | | |
| $2t = m \lambda_{\text{film}} \quad (m = 0, 1, 2, \dots)$ | | | |
| $\sin \theta = m \frac{\lambda}{a} \quad m = \pm 1, \pm 2, \pm 3, \dots$ | | | |
| $I = I_0 \cos^2 \theta$ | | | |
| $\tan \theta_B = \frac{n_2}{n_1}$ | | | |