Exam 2 Equation Sheet:

$$\Delta\varphi = k\Delta r + \Delta\varphi_{reflections}$$

$$v = \frac{c}{n}$$

$$\lambda_n = \frac{\lambda}{n}$$

$$a\sin(\theta_p) = p\lambda$$

$$d\sin(\theta_m) = m\lambda$$

$$\theta_1 = \frac{1.22\lambda}{D}$$

$$\theta_i = \theta_r$$

$$n_1\sin\theta_1 = n_2\sin\theta_2$$

$$\frac{1}{s} + \frac{1}{s'} = \frac{1}{f}$$

$$\frac{(n_2 - n_1)}{R} = \frac{n_1}{s} + \frac{n_2}{s'}$$

$$f = \frac{R}{2}$$

$$m = -\frac{s'}{s}$$

$$\frac{1}{f} = (n-1)\left(\frac{1}{R_1} - \frac{1}{R_2}\right)$$

$$M \approx \frac{25cm}{f}$$

$$M \approx -\frac{L}{f_{obj}}\frac{25cm}{f_{eye}}$$

$$M = -\frac{f_{obj}}{f_{eye}}$$

$$I(\theta) = I_0 cos^2\theta$$