

HW9 Solution

10.7 $\theta_w = 0.52^\circ$.

10.8 Slit width is $b = 106.5\mu\text{m}$. In water, the angle would be $\theta = 4.66^\circ$.

10.11 4 Young's fringes inside the central bright band.

10.17 Three parallel slits would give this pattern, since there are two minima between neighboring principal maxima.

10.23 $q_{min} \approx \lambda = 400\text{nm}$ (for visible light).