Practice Problem Set 9

1. Wolfson 30.26

2. Wolfson 30.38

3. Diffraction Grating; Chapter 32.

Consider a light source emitting a light beam horizontally with wavelength $\lambda = 400.0\text{nm}$, and the light goes along the horizontal direction through the center of a diffraction grating of length 2.00 cm with 10,000 evenly distributed (or spaced) slits oriented perpendicular to the light beam. A screen is set 10.0 cm away from the grating and also oriented perpendicular to the light beam. What is the distance between central maximum and 1st order maximum on the screen?