

NAME _____

1. State the Huygens-Fresnel principle.

2. Plane waves are incident on a slit whose width is adjustable. The slit starts out on wavelength wide and increases to a width of 1000 wavelengths. Describe qualitatively the change in the diffraction pattern.

3. Light whose wavelength is 514 nm is incident on a 0.008-mm wide slit. At what angle is the first diffraction minimum located?

4. What is the purpose of the variable density beam splitter used in this experiment?

5. What device is used to collect the data in this experiment?

Question 1 Experiment 3 in the laboratory manual should be answered before you come to the laboratory.