

READING ASSIGNMENT FOR APRIL 17

SECTIONS 17.5 AND 17.6

17.5 Single-Slit Diffraction

- Diffraction can occur in a single slit!
- It's a little tricky since the slit has to be small enough to cause diffraction but not too small. If the opening is smaller than the wavelength then the wave diffracts so much that the interference pattern is washed out.
- It's standard practice to use Huygens's Principle to explain the single slit, so expect the same in lecture.
- Again the book is making the small-angle approximation where I will not.

17.6 Circular-Aperture Diffraction

- I won't have time to cover this in lecture, so read for your own edification.

THE QUIZ IS AT: www.masteringphysics.com/site/login.html