

READING ASSIGNMENT FOR APRIL 15

SECTIONS 17.3 AND 17.4

17.3 - The Diffraction Grating

- Diffraction grating - like the double slit on steroids. Results in either total constructive or total destructive interference.
- The condition for the constructive spots is the same as the double slit. Everywhere else is destructive.
- I probably won't go over reflective gratings in class, so do read why DVD's look pretty.

17.4 - Thin-Film Interference

- Thin-Films in themselves aren't that hard to understand. It's the business with the reflective phase shift that makes them tricky.
- If there is no or if both beams undergo a reflective phase shift, then the condition for constructive and destructive are the same as the double slit. (But with a path difference of twice the thickness.)
- If only one of the beams undergoes a reflective phase shift then the conditions for constructive and destructive flip.

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