

Homework 9

Due April 14th, 2017 at 5pm

Reading Hecht Ch. 10.3 and Ch. 7, §§1-4.

1. Hecht 10.19
2. Hecht 10.22
3. (a) Hecht 10.25 & (b) Hecht 10.26
4. Derive the intensity $I(Y, Z)$ of a square slit of side length b . Of course, you can refer to our course text if you have trouble with this derivation. However, please delay doing this until the last moment because this problem is at a perfect level of difficulty for you to practice these techniques.
5. Hecht 10.37
6. An important topic that we haven't had a chance to cover in class yet is discussed in §10.2.6 of Hecht. Read this short section and then apply it to Hecht 10.46. These sorts of ideas are of daily relevance to astronomers.