Modern Optics: Homework 22

Due: day month 2015

1 Bennett, *Principles of Physical Optics*, 6.2, page 291.

2 Fraunhofer diffraction from a double slit.

A double slit consists of two apertures whose widths are each b and whose centers are separated by distance d. Using the same set up as in class with $y = 0$ at the midpoint between the apertures and θ the angle as measured from the midpoint, determine an expression for the intensity of the light at a distant screen in terms of θ and relevant constants.