

H. Assignment 12

Part I

Problem 1 Prove Eq (4.13) from Bessel's equation.

Problem 2 Exercise 12.7.1

Problem 3 Use graphical analysis to compare scalar and vector diffraction for a circular aperture at non-normal incidence; see Eqs. (12.179) and (12.216).

Part II (Hints will be provided.)

Problem 4 Exercise 12.3.2 PLUS Part (c) *

Problem 5 Exercise 12.3.3 PLUS Part (b) **

(c) * Plot the total cross section versus ka

(b) ** Plot the differential cross section.