

Homework 3

Laplace Equation

Ex. 3.1: Drawing Solutions to Laplace Equation

Heald & Marion ex. 3-7

Ex. 3.2: Coaxial Cylinders

Heald & Marion ex. 3-1

Ex. 3.3: Repeating-stepfunction boundary condition

Heald & Marion ex. 3-5

Ex. 3.4: Rectangular Box

Heald & Marion ex. 3.6

You can use the solution of example 3.2(b) from the book as the starting point for this exercise.

Suggested Heald & Marion Problems for further study:

- 3.4: Earnshaw's Theorem
- 3-14: Scalar Potential with $l = 2$.
Add: What configuration of charges a scalar potential with the B_2 term alone?
- 3-17: Dipole in cavity
- 3-23: Depolarizing factor