

Physics 5B (Spring 2023): Homework #6

Please submit on online before 6:00 pm on Monday, March 6, 2023.

Relationship between resistance and resistivity

Exercise 4.22 Resistivity of the first transatlantic cable.

Relationship between resistivity and mean free path

Exercise 4.25 Conductance of salty water

Exploring the relation between conductivity, conductance and geometry

Exercise 4.33 The conductivity of a layered medium

Circuits: Effective resistance of a network

Exercise 4.31 Figuring out what's inside the box

Exercise 4.36 Exploring the concept of infinity

Power dissipation

Exercise 4.40 Minimum power dissipation