

02ELMA - Homework 7

Assigned for the week of Mar 31, 2025

Questions

1. Find the magnetic field in the center of a square loop, which carries a steady current I . Let R be the distance from center to side (Hint: You may make use of the result we obtained in the lecture about the magnetic field created by a finite wire).
2. A steady current I flows down a long cylindrical wire of radius a . Find the magnetic field, both inside and outside the wire, if the current is uniformly distributed over the outside surface of the wire.