Problem set 03

Problem 1

In a large homogeneous material slab with conductivity σ flows a homogeneous current in one direction. A cylindrical hole is drilled through the slab with radius a.

(a) Find the changed current density in the slab outside the hole.

(b) What scalar quantity is reasonable to graph here besides the vector field representing the current flow? Make a graph of this scalar quantity.

The problem is due Monday February 10 2025 at 20:00