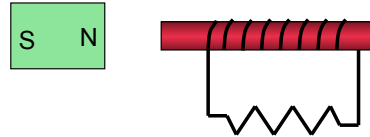


Problem 20.15

What is the direction of current in the coil when the magnetic is moved:

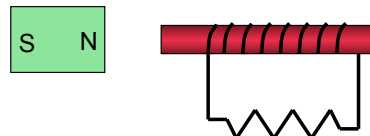


a.) to the left?

b.) to the right?

1.

What is the direction of current in the coil when the magnetic is moved:



a.) to the left?

According to Lenz's Law: the external B field is to the right down the axis of the coil; the magnetic flux is decreasing, so the induced B field must also be to the right; this will be produced by a current flowing counterclockwise through the resistor.

b.) to the right?

According to Lenz's Law: the external B field is to the right down the axis of the coil; the magnetic flux is increasing, so the induced B field must also be to the left; this will be produced by a current flowing clockwise through the resistor.

2.