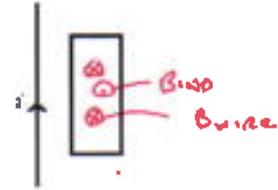


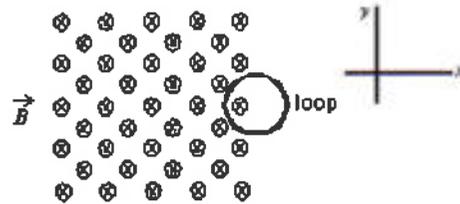
1. A long straight wire is in the plane of a rectangular conducting loop. The straight wire carries an increasing current in the direction shown. The current in the rectangle is:

- A) zero
- B) clockwise
- C) counterclockwise
- D) clockwise in the left side and counterclockwise in the right side
- E) counterclockwise in the left side and clockwise in the right side



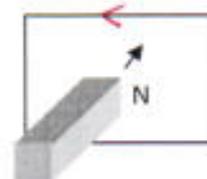
2. A circular loop of wire is positioned half in and half out of a square region of constant uniform magnetic field directed into the page, as shown. To induce a clockwise current in this loop:

- A) move it in $+x$ direction
- B) move it in $+y$ direction
- C) move it in $-y$ direction
- D) move it in $-x$ direction
- E) increase the strength of the magnetic field

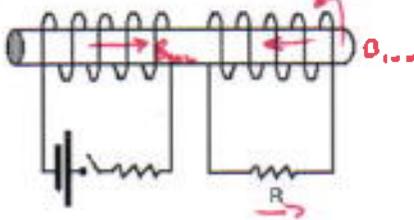


3. You push a permanent magnet with its north pole away from you toward a loop of conducting wire in front of you. Before the north pole enters the loop the current in the loop is:

- A) zero
- B) clockwise
- C) counterclockwise
- D) to your left
- E) to your right

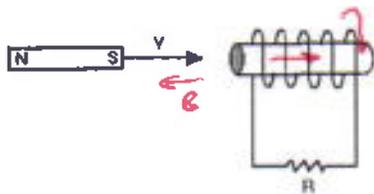


4. For a short time after the switch is closed, the current through resistor R is:



- A. To the left
- B. To the right
- C. Zero

5. As the magnet is moved toward the coil, the current through resistor R is:



- A. To the left
- B. To the right
- C. Zero