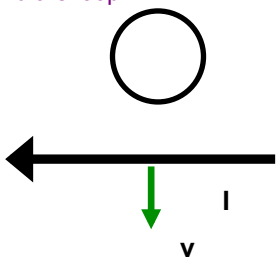
A current-carrying wire is pulled away from a conducting loop. As the wire moves, is there a current induced around the loop?

A: Yes, CW

B: Yes, CCW

C: No

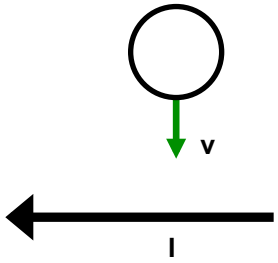


A conducting loop is pulled towards a wire carrying a steady current. As the loop moves, is there a current induced around the loop?

A: Yes, CW

B: Yes, CCW

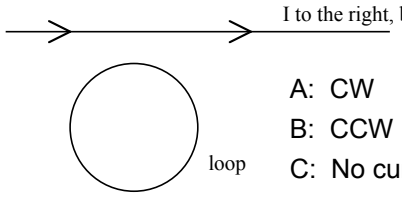
C: No



A loop of wire is near a long straight wire carrying a large current I, which is ***decreasing with time***.

The loop and wire are in the same plane.

The current induced in the loop is



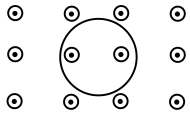
A: CW

B: CCW

C: No current

A loop of wire (area A, resistance R) sits in a uniform B field (shown) which is steadily increasing in magnitude: B = c t.
(where c is a constant)

The |current| induced in the loop is...



A: c A

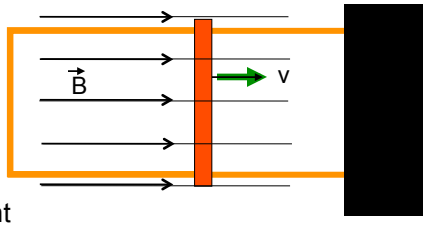
B: c A /R

C: c A t

D: c A t / R

E: Something else

The rail (gold) is fixed. A conducting rod (red) slides right with velocity v, contacting the rail. Is there an induced current in this circuit? If so, which way?



A: CW
B: CCW
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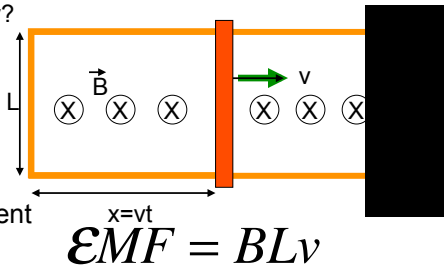
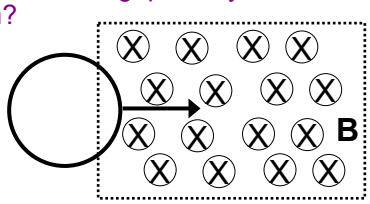


A: CW
B: CCW
C: No current

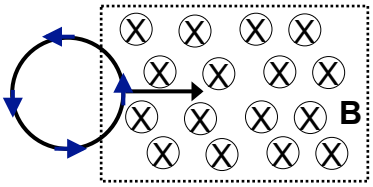
$$\mathcal{E}MF = BLv$$

A conducting loop is moving from left to right into a region of steady, constant B-field. What current is induced in the loop as the loop is entering, partway into the field region?



A: CW B: CCW C: None

As the loop enters the B-field, the direction of the "induced magnetic force" **on the loop** is ...

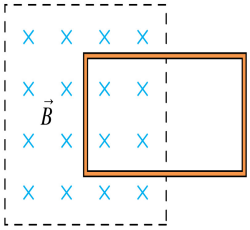


A: Left ← B: right→ C: into the page

D: out of the page E: No force

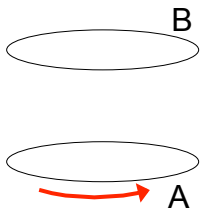
A conducting loop is halfway into a B-field. Suppose B begins to increase rapidly in strength. What happens to the loop? It is pushed

A: ←
B: →
C: Down the page
D: Perp. to the page
E: No net force.



Two loop of wires (A and B) are placed near each other. A large STEADY current flows in A as shown. Which way is the induced current this produces in loop B?

A: Parallel current
B: Opposite current
C: No current is induced



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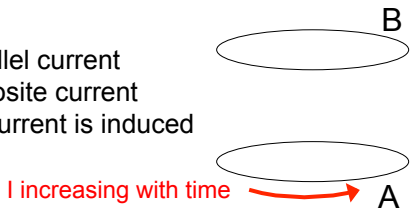
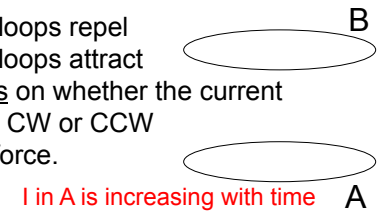


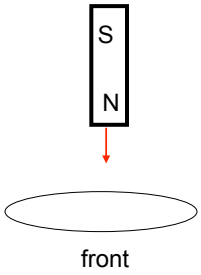
Two loop of wires (A and B) are placed near each other. A steadily <u>increasing</u> current flows in A.
How does ring B react?

A: the two loops repel
B: the two loops attract
C: <u>depends</u> on whether the current in loop A is CW or CCW
D: No net force.



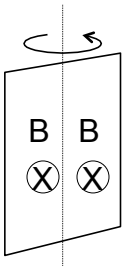
A magnet falls towards a conducting ring. As it falls, a current is induced in the ring. Does this induced current

A: repel (hold up) the magnet
B: attract (pull down) the magnet
C: neither of the above/ depends...



A metal soda can has a wire loop around it. Suddenly a large increasing I runs in the wire loop. What happens?

A rectangular wire loop rotates in a fixed external B field. At the instant shown, the loop is out of the plane of the page with the left side of the loop above the page and coming out of the page, the right side in going in. The induced current is ...

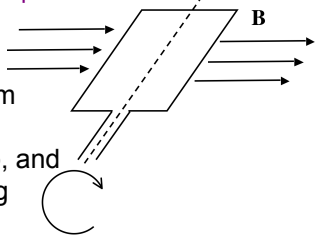


A) CCW 

B) CW

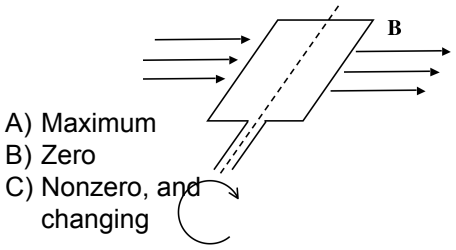
C) 0

A hand-cranked electric generator is rotating CCW in a constant uniform B-field which points right. What can you say about the magnetic flux through the loop *at this moment, shown*?



A) Maximum
B) Zero
C) Nonzero, and changing

What can you say about the current generated by the loop at this moment shown?



A) Maximum
B) Zero
C) Nonzero, and changing