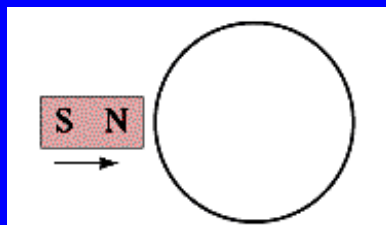


### ConcepTest 29.2b Moving Bar Magnet II

If a North pole moves toward the loop in the plane of the page, in what direction is the induced current?

- 1) clockwise
- 2) counterclockwise
- 3) no induced current

Since the magnet is moving parallel to the loop, there is no magnetic flux through the loop. Thus the induced current is zero.

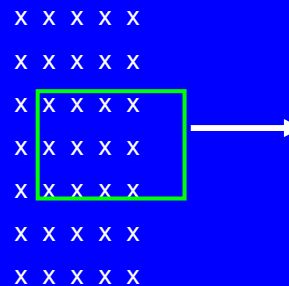


### ConcepTest 29.3b Moving Wire Loop II

A wire loop is being pulled through a uniform magnetic field that suddenly ends. What is the direction of the induced current?

- 1) clockwise
- 2) counterclockwise
- 3) no induced current

The  $B$  field into the page is disappearing in the loop, so it must be compensated by an induced flux also into the page. This can be accomplished by an induced current in the clockwise direction in the wire loop.



Follow-up: What happens when the loop is completely out of the field?