
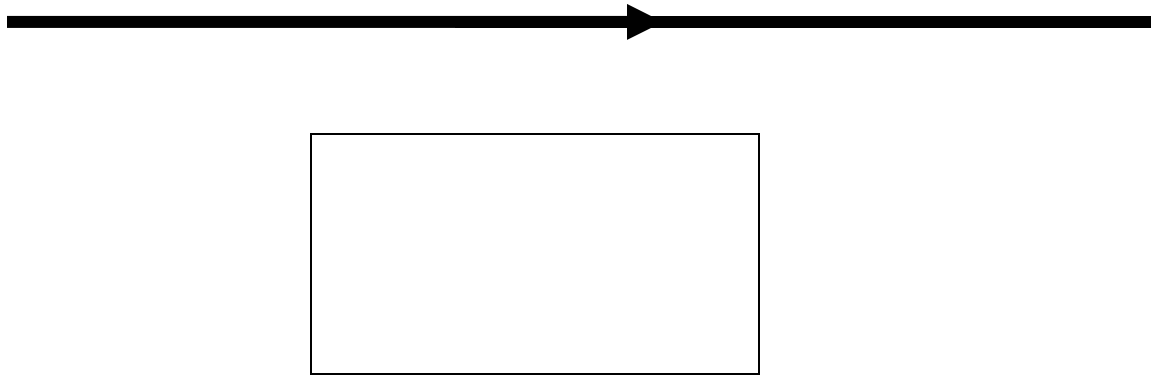



A long straight wire has a decreasing current. A rectangular loop lies in the same plane as the wire. What direction (if any) does the induced current in the rectangular loop flow? 



1. clockwise
2. counter-clockwise
3. no current is induced
4. need more information

In which of the following scenarios is work done by the outside agent that is doing the dragging? In all cases the loop is lying on a frictionless table and the magnetic field is oriented out of the table. 

- I. A wire loop is pulled through a constant magnetic field at constant speed.
- II. A wire loop is pulled from a region of high magnetic field to low magnetic field.
- III. A wire loop is pulled from a region of low magnetic field to high magnetic field.

- |        |                  |
|--------|------------------|
| 1. I   | 4. I and II      |
| 2. II  | 5. II and III    |
| 3. III | 6. I and III     |
|        | 7. I, II and III |