**IB Physics**

**FA 21.1 - Lenz's Law**

Name

Favorite Slogan

**Find the direction of the induced current (CW or ACW) "." = out of the page, "x" = into the page)**

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| --- | --- | --- | --- | --- |
| **1** | CW | ACWB:x x x x x x xx x x x x x xx x x x x x xx x x x x x x | ACW | CWB:x x x x x x xx x x x x x xx x x x x x xx x x x x x x |
| **2** | **B increases**CW | **B decreases**CWB x x x x x x xx x x x x x xx x x x x x xx x x x x x x | **The magnet moves as shown. Which way does the current flow on the front of the coil?**downN S | **The magnet moves as shown. Which way does the current flow on the front of the coil?**downS N |
| **3** | **Current increases**ICW | **Current decreases**ACWI | **Current in outer loop increases**CW | **Current in inner loop increases**CW |
| **4** | **Which end of the wire is +?**bottomB:. . . . . . .. . . . . . .. . . . . . .. . . . . . . | **Which end of the wire is +?**rightB x x x x x x xx x x x x x xx x x x x x xx x x x x x x | **CW or ACW?**cwB:. . . . . . .. . . . . . .. . . . . . .. . . . . . . | **CW or ACW**cwB x x x x x x xx x x x x x xx x x x x x xx x x x x x x |

5. The 12.0 cm diameter loop below has 58 windings, and is pulled from the 3.10 T magnetic field in 0.0150 s. What is the average EMF, and what direction does the current flow? (136 V, CW)

B

x x x x x x x

x x x x x x x

x x x x x x x

x x x x x x x