

# 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)**

<b>1</b>	<p>B:</p> <p style="text-align: right;">CW</p>	<p>B:</p> <p style="text-align: right;">ACW</p>	<p>B:</p> <p style="text-align: right;">ACW</p>	<p>B:</p> <p style="text-align: right;">CW</p>
<b>2</b>	<p><b>B increases</b></p> <p>B:</p> <p style="text-align: right;">CW</p>	<p><b>B decreases</b></p> <p>B</p> <p style="text-align: right;">CW</p>	<p><b>The magnet moves as shown. Which way does the current flow on the front of the coil?</b></p> <p style="text-align: right;">down</p>	<p><b>The magnet moves as shown. Which way does the current flow on the front of the coil?</b></p> <p style="text-align: right;">down</p>
<b>3</b>	<p><b>Current increases</b></p> <p style="text-align: right;">CW</p>	<p><b>Current decreases</b></p> <p style="text-align: right;">ACW</p>	<p><b>Current in outer loop increases</b></p> <p style="text-align: right;">CW</p>	<p><b>Current in inner loop increases</b></p> <p style="text-align: right;">CW</p>
<b>4</b>	<p><b>Which end of the wire is +?</b></p> <p>B:</p> <p style="text-align: right;">bottom</p>	<p><b>Which end of the wire is +?</b></p> <p>B</p> <p style="text-align: right;">right</p>	<p><b>CW or ACW?</b></p> <p>B:</p> <p style="text-align: right;">cw</p>	<p><b>CW or ACW?</b></p> <p>B</p> <p style="text-align: right;">cw</p>

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)

