## <u>Quiz 22.1a</u>

A circular loop contains 25 wires bundled together in a circle of radius 41 cm. The loop is in a uniform magnetic field of 7.7  $\mu$ T directed into the page, and the loop is initially oriented so that the plane of the loop is in the plane of the page as shown.

The loop now rotates 90 degrees in such a way that the right side of the loop goes into the page and the left side comes out of the page. It takes the loop 0.37 seconds to complete the 90 degree turn. Assume the loop has a resistance of 0.13 Ohms.

During this time interval, what is the magnitude and direction of the average induced current in the loop?

