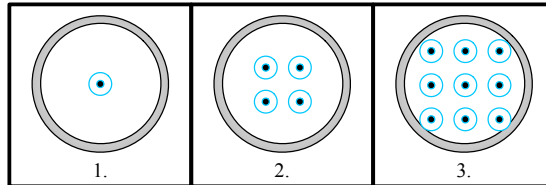
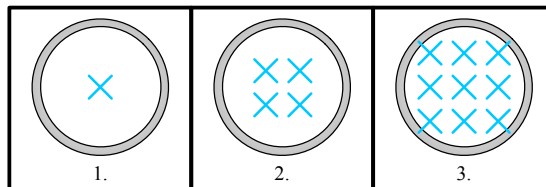


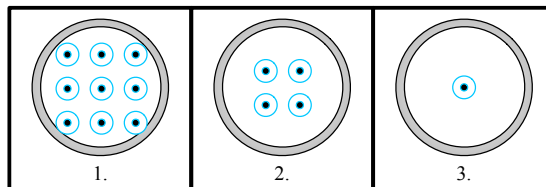
1. The three frames below show a wire loop at three consecutive moments and a magnetic field from an external magnet, which is not shown. This external magnetic field is directed out of the page and is strengthening over the sequence of the three frames. As a result of the strengthening of the external magnetic field, magnetic flux through the loop increases and a current is induced in the loop by the emf that is generated. And that induced current creates its own magnetic field that we call the “induced” magnetic field.



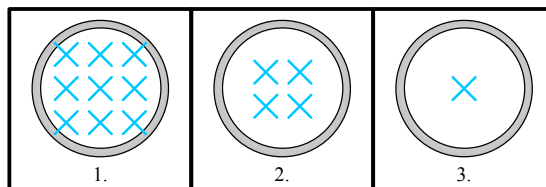
- (a) Is the induced magnetic field directed **into** or **out of** the page? [Hint: Use Lenz’s Rule.]
 (b) Is the current induced in this loop of wire flowing **clockwise** or **counterclockwise**?
2. The three frames below show a wire loop and a strengthening magnetic field from an external magnet.



- (a) Is the induced magnetic field directed **into** or **out of** the page?
 (b) Is the current induced in this loop of wire flowing **clockwise** or **counterclockwise**?
3. The three frames below show a wire loop and a weakening magnetic field from an external magnet.



- (a) Is the induced magnetic field directed **into** or **out of** the page?
 (b) Is the current induced in this loop of wire flowing **clockwise** or **counterclockwise**?
4. The three frames below show a wire loop and a weakening magnetic field from an external magnet.



- (a) Is the induced magnetic field directed **into** or **out of** the page?
 (b) Is the current induced in this loop of wire flowing **clockwise** or **counterclockwise**?