Reading Quiz 4

- Faraday's law says that
  1. an emf is induced in a loop when it moves through an electric field
  2. the induced emf produces a current whose magnetic field opposes the original change
  3. the induced emf is proportional to the rate of change of magnetic flux

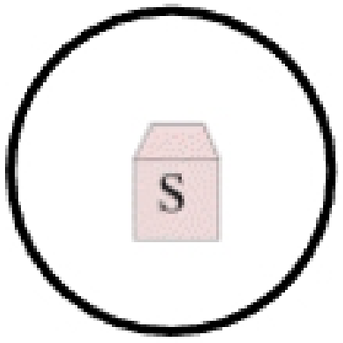
Faraday's law

ConcepTest: Lenz's Law

➔If a North pole moves towards the loop from above the page, in what direction is the induced current?

- (a) clockwise
- (b) counter-clockwise
- (c) no induced current

Must counter flux change in downward direction with upward B field



ConcepTest: Induced Currents

➔A wire loop is being pulled through a uniform magnetic field. What is the direction of the induced current?

- (a) clockwise
- (b) counter-clockwise
- (c) no induced current

No change in flux, no induced current