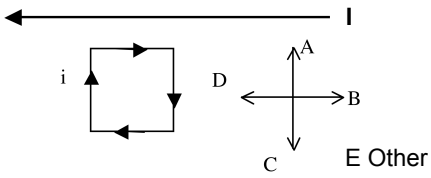
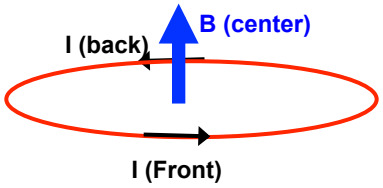
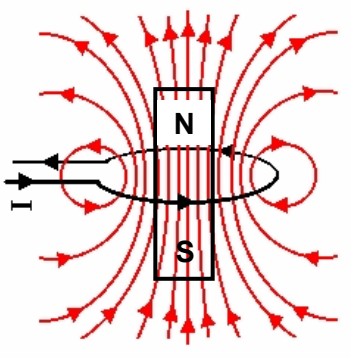
A rectangular loop of wire (with CW current i) is near a long straight wire carrying current I. What is the direction of the net force on the rectangular loop, due to the B-field from the long, straight wire?



E Other

Current loop:
Which way is B(center) pointing?





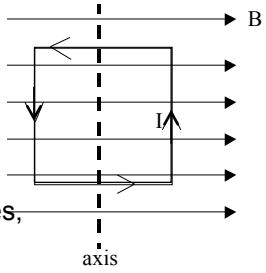
A current-carrying loop of wire can pivot on a frictionless axis through its center. There is a uniform magnetic field B pointing right. How does the loop move?

A: Slides right.

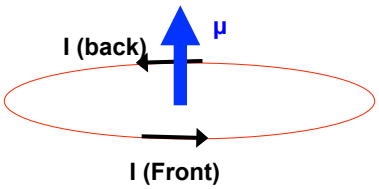
B: *twists*, right edge towards you.

C: *twists*, left edge towards you.

D: Nothing, no torques, no forces.



Magnetic moment:



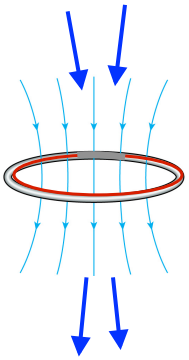
μ = I*Area of loop

points normal to area, like B(center)

What is the current direction in this loop (viewed from above?)

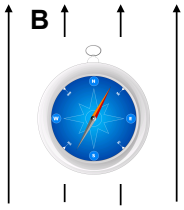
And which side of the loop is the north pole?

A) CW; N on top
B) CCW: N on top
C) CW: N on bottom
D) CCW: N on bottom

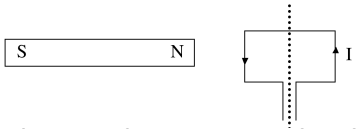


The compass magnet has a Dipole Moment pointing along the RED arrow (North End of the Magnet). What is the direction of the rotation for this compass?

A) CW
B) CCW
C) There is no net torque



A bar magnet is placed near a rectangular loop of wire carrying a current I, as shown. The loop can rotate freely about the axis. (Shown dashed)

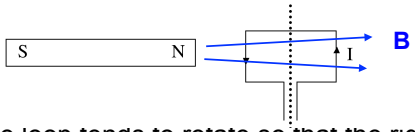


The loop tends to rotate so that the right edge:

A: Shifts sideways B: rotates towards you

C: rotates away D: no motion

A bar magnet is placed near a rectangular loop of wire carrying a current I, as shown. The loop can rotate freely about the axis. (Shown dashed)



The loop tends to rotate so that the right edge:

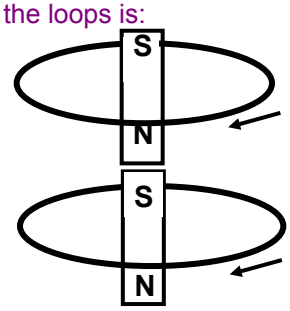
A: Shifts sideways B: rotates towards you

C: rotates away D: no motion

Two loops of wire have current going around in same directions.

The forces between the loops is:

A: Attractive
B: Repulsive
C: Net force is zero.



Solenoid: A long coil of wire consisting of many loop of wire