

WebAssign
CH21-HW01-FALL2010 (Homework)

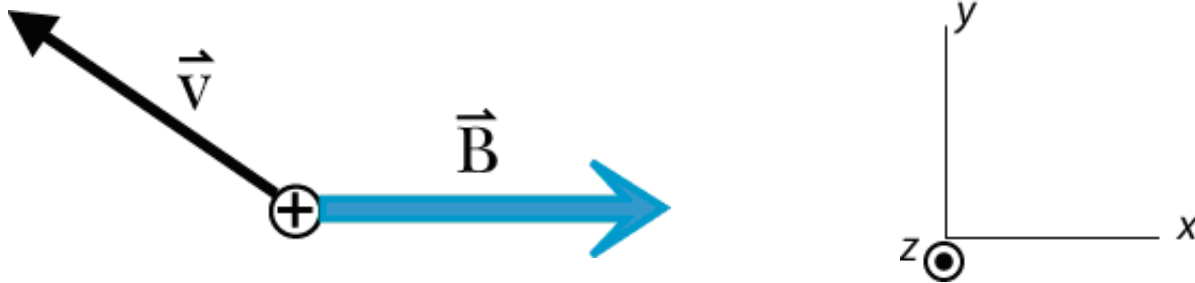
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 PHYS 272-FALL 2012, Fall 2012
 Instructor: Virendra Saxena

Current Score : 14 / 14 **Due :** Friday, November 2 2012 11:59 PM EDT

1. 2/2 points | [Previous Answers](#)

MI2 20.CQ.01

What is the direction of the magnetic force on the proton?



- ☐ 1) +x
- ☐ 2) -x
- ☐ 3) +y
- ☐ 4) -y
- ☐ 5) +z
- ☒ 6) -z
- ☐ 7) zero magnitude



2. 4/4 points | [Previous Answers](#)

MI3 21.1.X.031

At a particular instant a proton is traveling in the **-y** direction, with speed 9×10^5 m/s. At the location of the proton there is a magnetic field of magnitude **0.34** T in the **-z** direction, due to current running in a nearby coil.

What is the direction of the magnetic force on the proton?

+x



What is the magnitude of the magnetic force on the proton?

$|\vec{F}_{\text{mag}}| =$ N



- [Read the eBook](#)
- [Section 21.1](#)

3. 4/4 points | [Previous Answers](#)

MI3 21.1.X.032

At a particular instant an electron is traveling in the $+x$ direction, with speed 3×10^5 m/s. At the location of the electron there is a magnetic field of magnitude 0.39 T in the $-y$ direction, due to a large bar magnet.

What is the direction of the magnetic force on the electron?

What is the magnitude of the magnetic force on the electron?

$|\vec{F}_{\text{mag}}| =$ N

- [Read the eBook](#)
- [Section 21.1](#)

4. 4/4 points | [Previous Answers](#)

MI3 21.1.X.033

At a particular instant an electron is traveling in the $+x$ direction, with speed 3×10^5 m/s. At the location of the electron there is a magnetic field of magnitude 0.23 T in the $-x$ direction, due to current running in a nearby coil.

What is the direction of the magnetic force on the electron?

What is the magnitude of the magnetic force on the electron?

$|\vec{F}_{\text{mag}}| =$ N

- [Read the eBook](#)
- [Section 21.1](#)