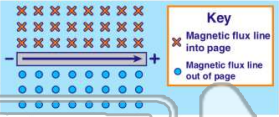




Name _____ Class _____ Date _____

1

This diagram represents

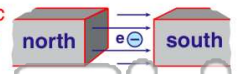


- A the magnetic field around a wire in which electrons are flowing
- B protons and electrons flowing around an electrical wire
- C protons and neutrons flowing around an electrical wire
- D an electromagnetic field around an electrical wire

2

The diagram below shows an electron, **e**, located in a **magnetic field**.

There is **no magnetic force on the electron when it moves**



- A toward the right side of the page
- B toward the top of the page
- C into the page
- D out of the page

3

In a **mass spectrometer**, the strength of the magnetic field is 1.0×10^{-1} tesla. Upon entering the chamber of the spectrometer, a positive ion traveling at 2.0×10^6 meters per second

4

In the diagram below, a wire carrying an electron current into the page, as denoted by X, is placed in a magnetic field.

5

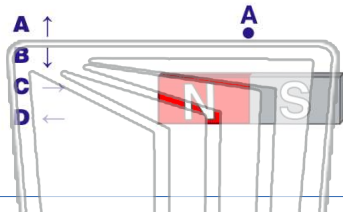


PREVIEW

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7

Which arrow best represents the direction of the needle of a compass placed at point A?



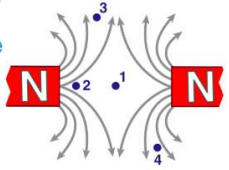
- A stationary
- B moving
- C positive
- D negative



9

The diagram below shows the lines of magnetic force between **two north magnetic poles**.

At which point is the magnetic field strength **greatest**?

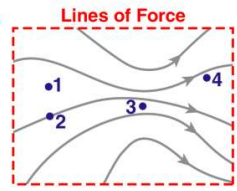


- A 1
- B 2
- C 3
- D 4

10

The diagram below represents magnetic lines of force within a region space.

The magnetic field is **strongest** at point



- A 1
- B 2
- C 3
- D 4



Name _____ Class _____ Date _____

1 This diagram represents

Key
 × Magnetic flux line into page
 • Magnetic flux line out of page

A the magnetic field around a wire in which electrons are flowing
 B protons and electrons flowing around an electrical wire
 C protons and neutrons flowing around an electrical wire
 D an electromagnetic field around an electrical wire

2 The diagram below shows an electron, e, located in a magnetic field.

There is **no** magnetic force on the electron when it moves

A toward the right side of the page
 B toward the top of the page
 C into the page
 D out of the page

3 In a mass spectrometer, the strength of the magnetic field is 1.0×10^{-1} tesla. Upon entering the chamber of the spectrometer, a positive ion traveling at 2.0×10^6 meters per second

4 In the diagram below, a wire carrying an electron current into the page, as denoted by X, is placed in a magnetic field.

PREVIEW

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7 Which arrow best represents the direction of the needle of a compass placed at point A?

A ↑
 B ↓
 C →
 D ←

8 The diagram below represents magnetic lines of force within a region space.

A stationary
 B moving
 C positive
 D negative

9 The diagram below shows the lines of magnetic force between two north magnetic poles.

At which point is the magnetic field strength greatest?

A 1 C 3
 B 2 D 4

10 The diagram below represents magnetic lines of force within a region space.

The magnetic field is **strongest** at point

A 1
 B 2
 C 3
 D 4