

## Warm Up Question 1

Look at the situation of “Stop to Think 29.2” on page 832. Suppose that a compass needle, that is free to rotate in all directions, is placed at point P. In which direction will it point? Explain your answer.

1. Into the page. Use the right hand rule.
2. Out of the page. Use the right hand rule.
3. Down or south.

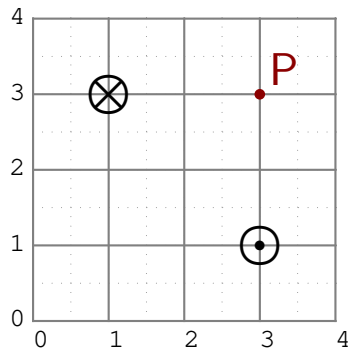
## Warm Up Question 2

A straight wire is mounted horizontally against a vertical whiteboard (such as in the classroom) and a current flows from left to right along the wire. What is the direction of the magnetic field at a location on the whiteboard below the wire? Explain your answer.

1. Into the board. Use the right hand rule.
2. Out of the board. Use the right hand rule.
3. Down. Use the right hand rule.

## Question 1

Two current carrying wires point out of the page as illustrated. The currents are equal in magnitude but flow in opposite directions.



Which of the following best indicates the direction of the magnetic field at point P?

1.

2.

3.

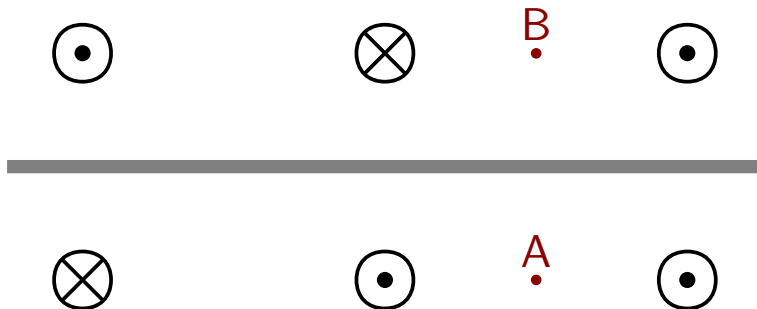
4.

5.

6. Magnitude is zero  $\Rightarrow$  no direction.

## Question 2

In two separate scenarios, three current carrying wires point out of the page as illustrated. The currents are equal in magnitude.



Which of the following is true?

1. The magnetic field at A is larger than at B.
2. The magnetic field at A is smaller than at B.
3. The magnetic field at A is the same as B.