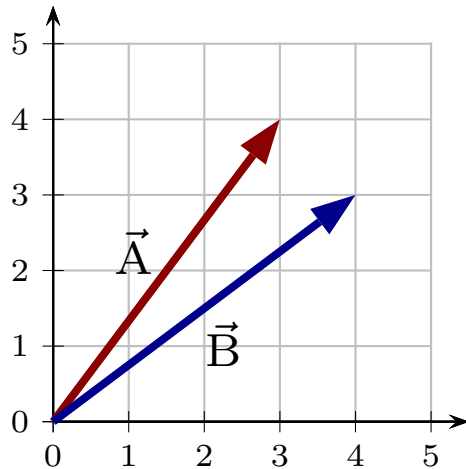


Question 1

Consider the two vectors \vec{A} and \vec{B} as illustrated.

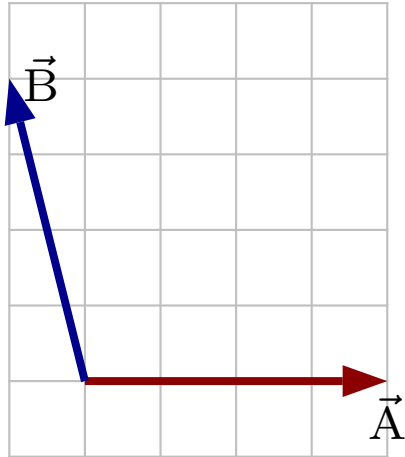


Which of the following is true?

1. The vectors have different magnitudes and are thus different.
2. The magnitudes are both 5 but the vectors are *not equal*.
3. The magnitudes are both 7 but the vectors are *not equal*.
4. The magnitudes are both 5 and the vectors are *equal*.
5. The magnitudes are both 7 and the vectors are *equal*.

Question 2

Consider the two vectors \vec{A} and \vec{B} as illustrated.



Which of the following is the magnitude of $\vec{C} = \vec{A} + \vec{B}$?

1. $C = 1$
2. $C = 5$
3. $C = 7$
4. $C = 8$
5. $C = 4 + \sqrt{17}$
6. $C = 9$

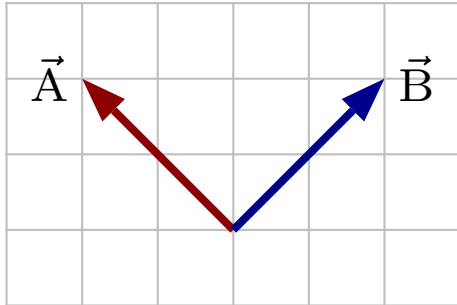
Warm Up Question 1

Two displacement vectors have magnitude 10 m. Vector \vec{A} points left and vector \vec{B} points right. Let the vector $\vec{D} = \vec{A} - \vec{B}$. Is \vec{D} zero or not? If not, what is the direction of \vec{D} ?

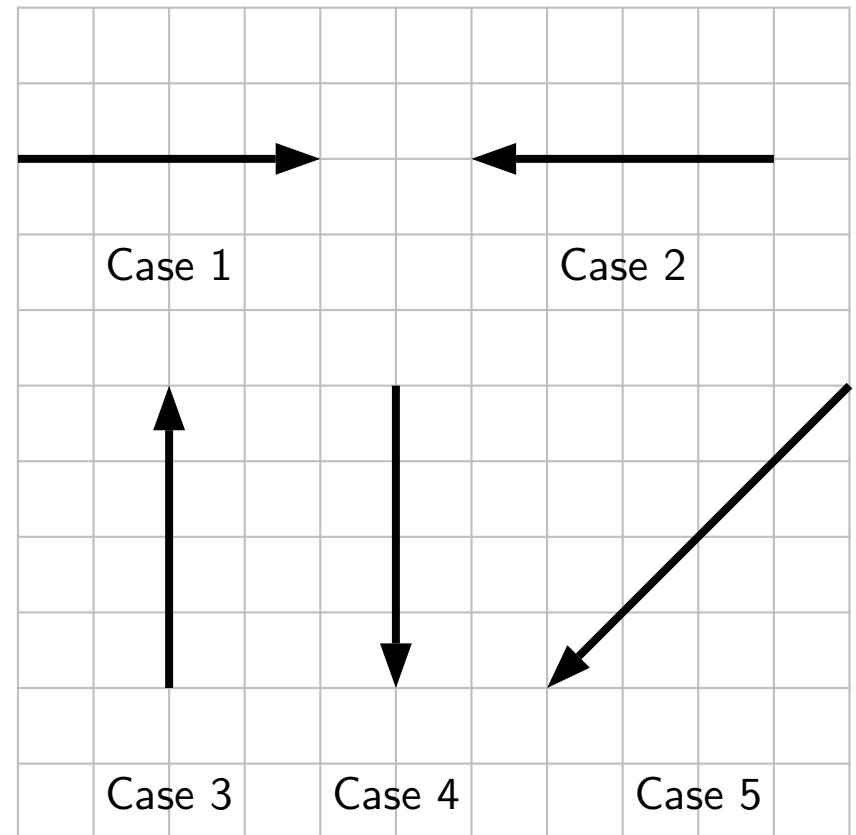
1. Not zero. Points left.
2. Not zero. Points right.
3. Zero. Subtracting two vectors with the same magnitude cancels.

Question 3

Consider the two vectors \vec{A} and \vec{B} as illustrated.



Which of the following best represents $\vec{A} - \vec{B}$?



Warm Up Question 2

A vector has a negative x component and a positive y component. Using the angle measured counterclockwise from the positive x axis, which of the following is a possible angle for the vector? a) from 0° to 90° , b) from 90° to 180° , c) from 180° to 270° and d) from 270° to 360° Explain your answer.

1. Option b.
2. Not option b.