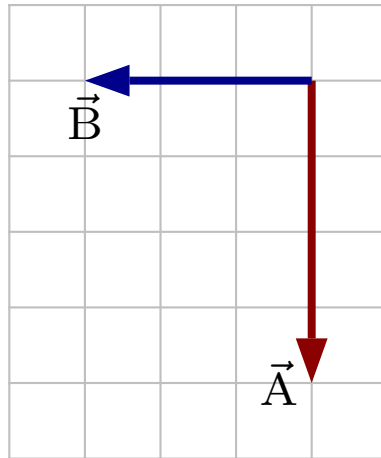


Question 1

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

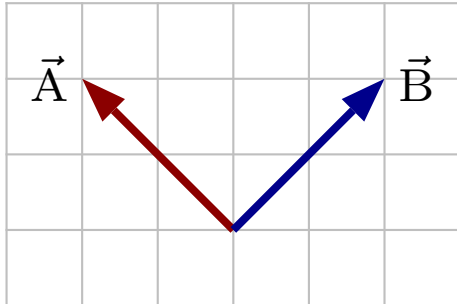


Which of the following is the magnitude of $\vec{C} = \vec{A} + \vec{B}$?

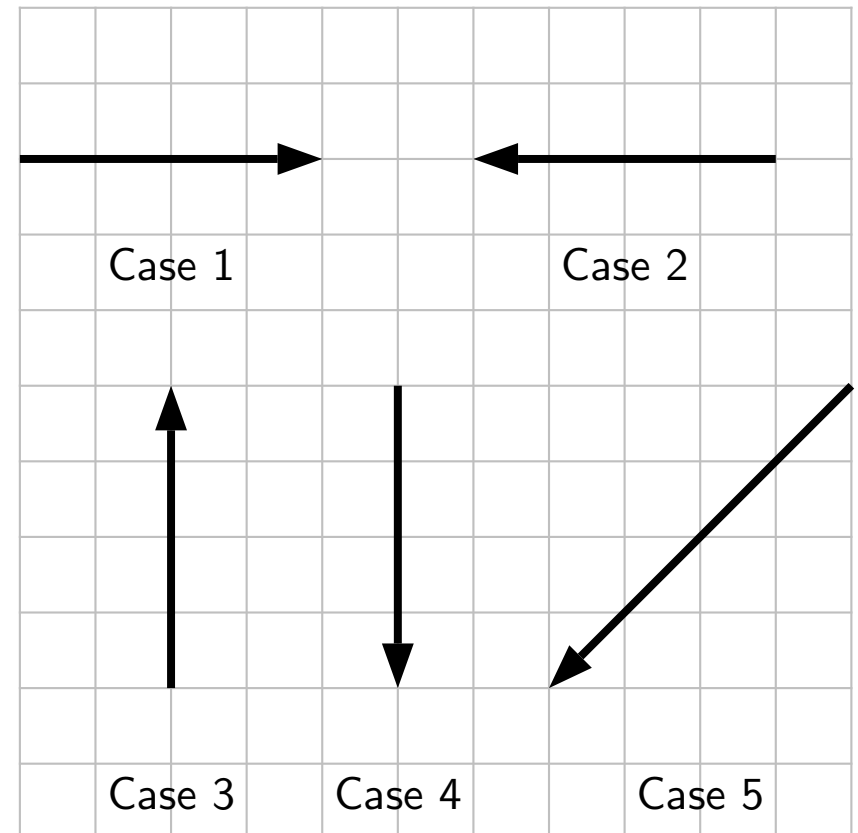
1. $C = 3$
2. $C = -3$
3. $C = 4$
4. $C = 5$
5. $C = -5$
6. $C = 7$

Question 2

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



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



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. Zero. Equal magnitudes subtract to give zero.

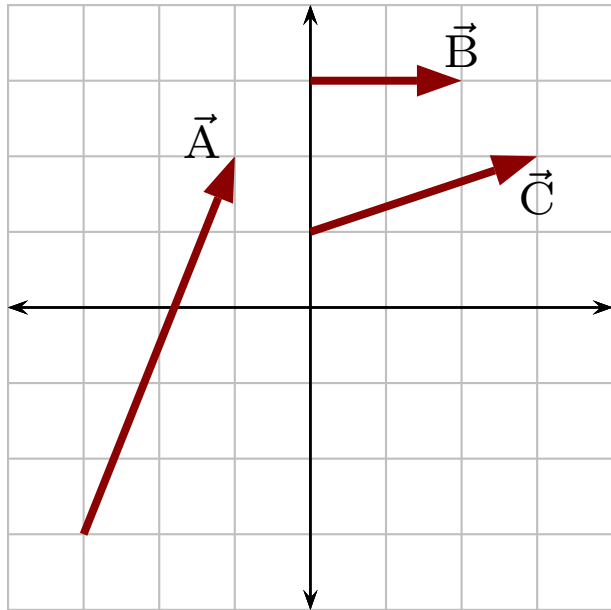
Warm Up Question 2

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). Left and up.
2. Option b). Negative x means quadrant 2 or 3. Positive y means quadrant 1 or 2.

Question 3

Several displacement vectors are illustrated below.



Rank these in order of increasing y -component.

1. $B_y < C_y < A_y$
2. $C_y < B_y < A_y$
3. $A_y = C_y < B_y$
4. $A_y < C_y < B_y$
5. $C_y < A_y < B_y$