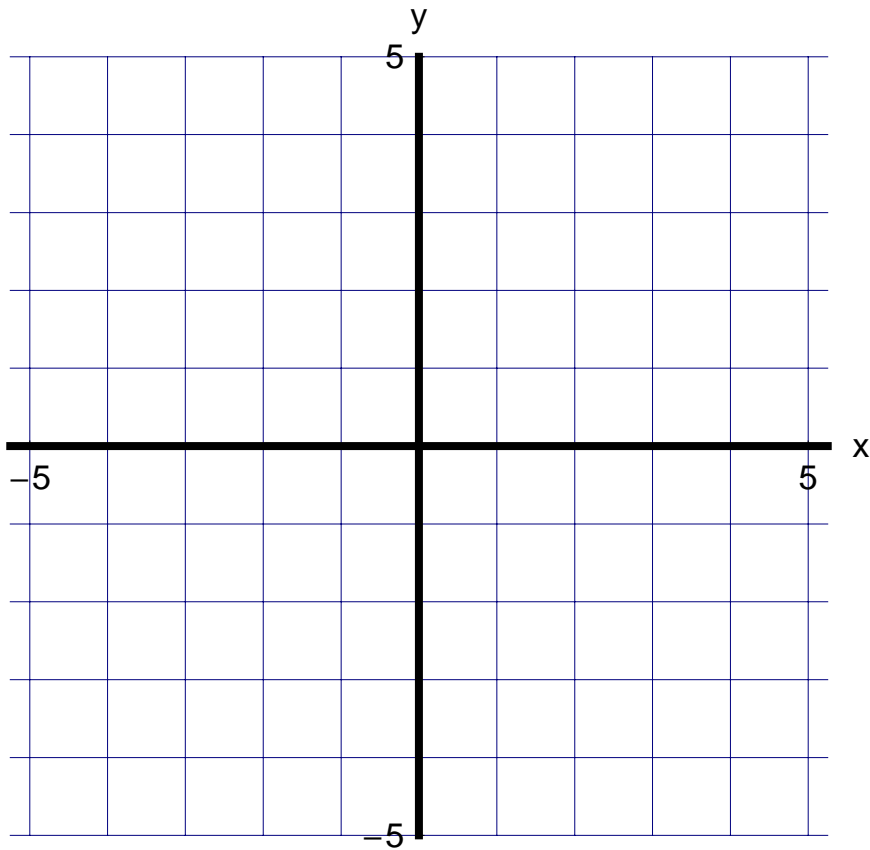


Worksheet 11.2: Vectors

Use the graph below and any starting point you choose to draw arrows that represent the given vectors.



1. $\langle 5, 2 \rangle$
 2. $\langle 4, -4 \rangle$
 3. $\langle -5, 0 \rangle$
 4. $\langle -4, -3 \rangle$
5. Find the magnitude and direction of each vector in exercises #1 - 4.

Add the following vectors and find the magnitude and direction of the sum.

7. $\langle 2, 1 \rangle + \langle 5, 2 \rangle$

8. $\langle -4, 5 \rangle + \langle 2, 13 \rangle$

9. A boy walks from point A to point B and then from point B to point C. If $\overrightarrow{AB} = \langle 2, 9 \rangle$ and $\overrightarrow{BC} = \langle 6, -3 \rangle$ how far is C from A? What one vector describes the trip from point A to point C?

10. An object is being pulled by two forces $\overrightarrow{XY} = \langle -1, 5 \rangle$ and $\overrightarrow{XZ} = \langle 7, 3 \rangle$. What single force has the same effect as the two forces acting together? What is the magnitude and direction of this force?