

Vectors in $\langle a, b \rangle$ Component Form

Name _____

Date _____ Period _____

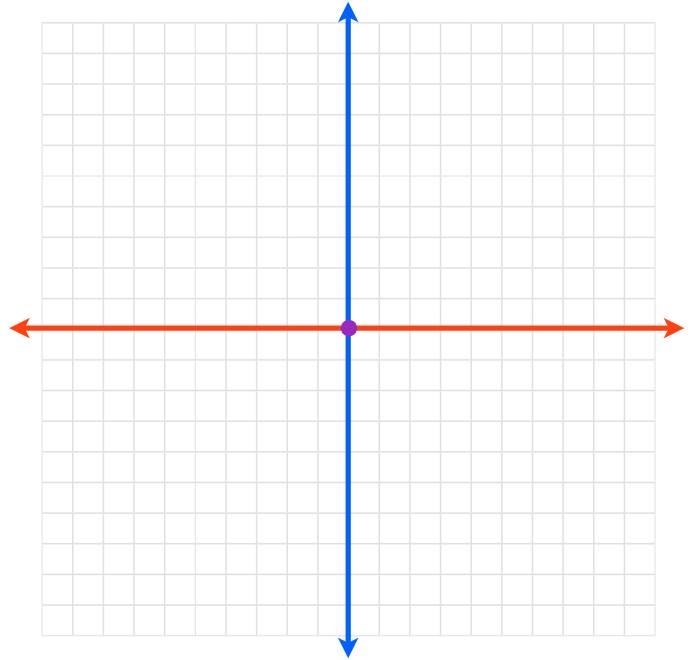
A **vector** can be expressed algebraically as...

$$\mathbf{v} = \langle a, b \rangle$$

the values a and b are scalar values and are called the components of \mathbf{v}

a is the **horizontal** component

b is the **vertical** component



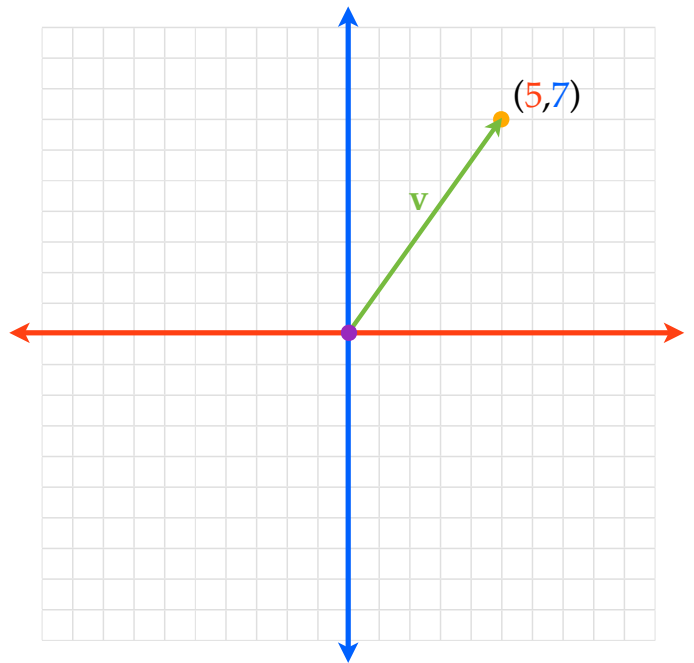
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Given a **vector** in component form, the initial point of the **vector** coincides with the **origin**, and the terminal point of the **vector** coincides with point $Q(a, b)$.

$$\mathbf{v} = \langle 5, 7 \rangle \Rightarrow Q(5, 7)$$

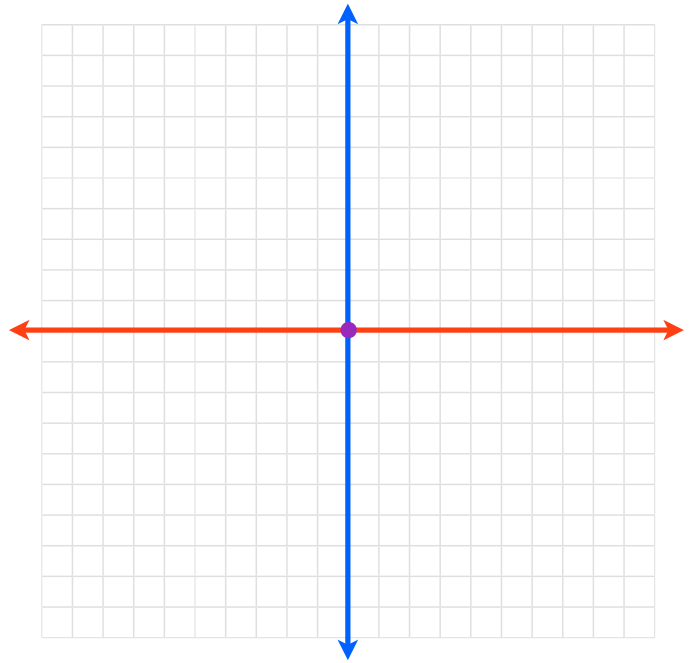


Graph the following **vectors** expressed in component form...

$$\mathbf{u} = \langle -9, 2 \rangle$$

$$\mathbf{v} = \langle -4, -7 \rangle$$

$$\mathbf{w} = \langle 5, -3 \rangle$$



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Given a **vector** in component form,

$$\mathbf{v} = \langle a, b \rangle \Rightarrow Q(a, b)$$

