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Write the ordered pair that represents \overrightarrow{YZ} . Then find the magnitude of \overrightarrow{YZ} .

17. $Y(5, 4), Z(0, -3)$ $\langle -5, -7 \rangle, \sqrt{74}$

Find an ordered pair to represent \vec{a} in each equation if $\vec{b} = \langle 6, 3 \rangle$ and $\vec{c} = \langle -4, 8 \rangle$.

23. $\vec{a} = \vec{b} + \vec{c}$ $\langle 2, 11 \rangle$

Find the magnitude of each vector. Then write each vector as the sum of unit vectors.

37. $\langle 2, -3 \rangle$ $\sqrt{13}, 2\vec{i} - 3\vec{j}$

Locate point B in space. Then find the magnitude of a vector from the origin to B .

13. $B(7, 2, 4)$ $\sqrt{69}$

Find an ordered triple to represent \vec{u} in each equation if $\vec{v} = \langle 4, -3, 5 \rangle$, $\vec{w} = \langle 2, 6, -1 \rangle$, and $\vec{z} = \langle 3, 0, 4 \rangle$.

23. $\vec{u} = \frac{1}{2}\vec{v} - \vec{w} + 2\vec{z}$ $\langle 6, -7\frac{1}{2}, 11\frac{1}{2} \rangle$

37. **Physics** An object is in equilibrium if the magnitude of the resultant force on it is zero. Two forces on an object are represented by $\langle 3, -2, 4 \rangle$ and $\langle 6, 2, 5 \rangle$. Find a third vector that will place the object in equilibrium. $\langle -9, 0, -9 \rangle$