



Multiply vectors by scalars

1

The grid shows $\vec{u}$ and a scalar multiple $a \cdot \vec{u}$. Find the scalar a .



- A -1 B -6 C -4 D -3

2

Find the scalar a .

$$\vec{u} = [-2, -1], \quad a\vec{u} = [4, 2]$$

A

-2

B

-4

C

-1

D

-5

3

Find the vector $a \cdot \vec{u}$.

$$\vec{u} = \begin{bmatrix} -3 \\ 1 \end{bmatrix}, \quad a = 2$$

A

$$\begin{bmatrix} 2 \\ -6 \end{bmatrix}$$

B

$$\begin{bmatrix} -5 \\ 1 \end{bmatrix}$$

C

$$\begin{bmatrix} -6 \\ 2 \end{bmatrix}$$

D

$$\begin{bmatrix} 6 \\ 2 \end{bmatrix}$$

4

Find the vector $a \cdot \vec{u}$.

$$\vec{u} = [-1, 2], \quad a = 3$$

A

$$\begin{bmatrix} 6 \\ -3 \end{bmatrix}$$

B

$$\begin{bmatrix} -3 \\ 6 \end{bmatrix}$$

C

$$\begin{bmatrix} 3 \\ -6 \end{bmatrix}$$

D

$$\begin{bmatrix} -2 \\ 5 \end{bmatrix}$$

5

Find the vector $a \cdot \vec{u}$.

$$\vec{u} = [2, -3], \quad a = -2$$

A

$$\begin{bmatrix} 4 \\ 6 \end{bmatrix}$$

B

$$\begin{bmatrix} 4 \\ -6 \end{bmatrix}$$

C

$$\begin{bmatrix} -4 \\ -6 \end{bmatrix}$$

D

$$\begin{bmatrix} -4 \\ 6 \end{bmatrix}$$

6

Find the vector $a \cdot \vec{u}$.

$$\vec{u} = [-1, 1], \quad a = -2$$

A

$$\begin{bmatrix} 2 \\ 2 \end{bmatrix}$$

B

$$\begin{bmatrix} 2 \\ -2 \end{bmatrix}$$

C

$$\begin{bmatrix} -2 \\ 2 \end{bmatrix}$$

D

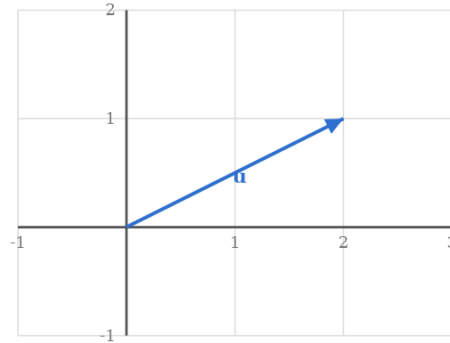
$$\begin{bmatrix} -2 \\ -2 \end{bmatrix}$$



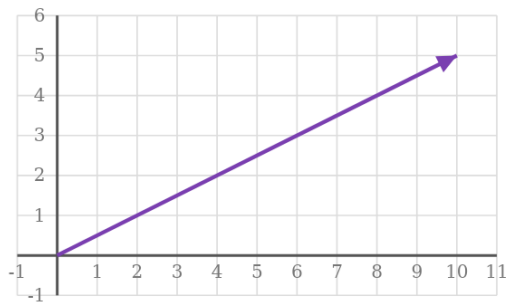
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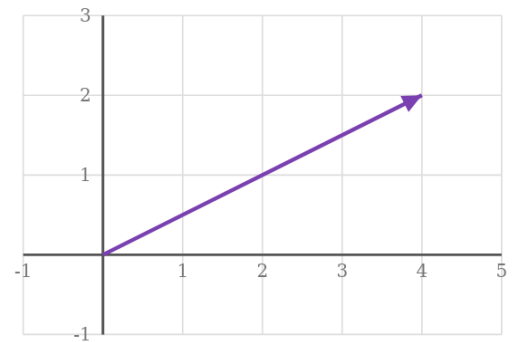
The vector u is shown. Choose the grid that shows $a \cdot u$ for $a = 2$.



A

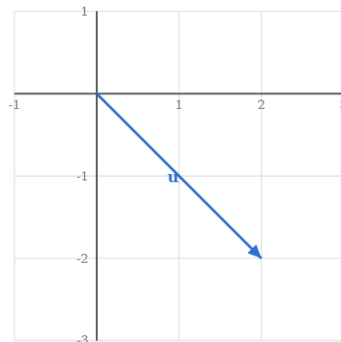


B



8

The vector u is shown. Choose the grid that shows $a \cdot u$ for $a = -2$.



A



B

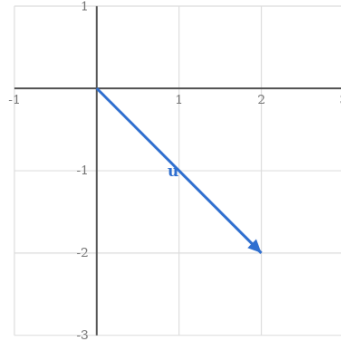




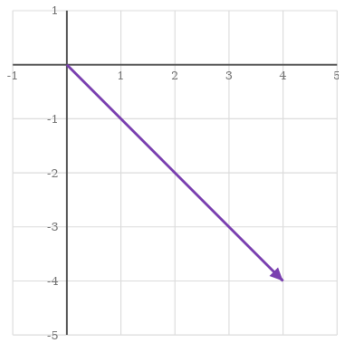
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The vector u is shown. Choose the grid that shows $a \cdot u$ for $a = 2$.



A



B



10

Find the vector $a \cdot u$.

$$\vec{u} = \begin{bmatrix} 2 \\ -1 \end{bmatrix}, \quad a = -2$$

A

$$\begin{bmatrix} 4 \\ 2 \end{bmatrix}$$

B

$$\begin{bmatrix} -4 \\ 2 \end{bmatrix}$$

C

$$\begin{bmatrix} -3 \\ 1 \end{bmatrix}$$

D

$$\begin{bmatrix} 4 \\ -2 \end{bmatrix}$$