

Linear Combination of Vectors

A) Find the linear combination of given vectors.

1) If $\vec{c} = \langle -2, -2 \rangle$ and $\vec{d} = \langle -2, -4 \rangle$,
find $5\vec{c} + 4\vec{d}$.

2) If $\vec{p} = \langle 1, 2 \rangle$ and $\vec{q} = \langle 5, 7 \rangle$,
find $-2\vec{q} - 3\vec{p}$.

3) If $\vec{x} = \langle 7, 9 \rangle$ and
find $\vec{y} - 2\vec{x}$.

and $\vec{n} = \langle -2, -10 \rangle$,
 \vec{n} .

5) If $\vec{a} = \langle 4, 6 \rangle$ and
find $4\vec{a} - \vec{b}$.

and $\vec{t} = \langle -5, 0 \rangle$,

B) 1) Which of the following is the result of $2\vec{u} + 3\vec{v}$ if $\vec{u} = \langle 10, 10 \rangle$ and $\vec{v} = \langle 3, 4 \rangle$?

a) $\langle 22, 26 \rangle$

b) $\langle 8, 26 \rangle$

c) $\langle -8, 26 \rangle$

d) $\langle 21, -27 \rangle$

2) Which of the following is $-4\vec{g} - 5\vec{h}$, if $\vec{g} = \langle -10, 1 \rangle$ and $\vec{h} = \langle 5, 8 \rangle$?

a) $\langle 15, 44 \rangle$

b) $\langle 15, -44 \rangle$

c) $\langle 65, 44 \rangle$

d) $\langle -15, 44 \rangle$

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