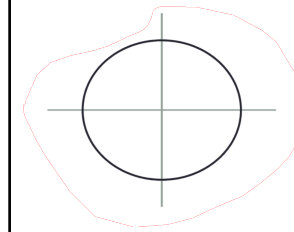


WRITING VECTORS IN TRIG FORM



Not a unit vector?
Multiply by the magnitude!

Component Form:

$$\vec{v} = \|\vec{v}\| \langle \cos \theta, \sin \theta \rangle$$

Sum of Vectors Form:

$$\vec{v} = \|\vec{v}\| (\cos \theta i + \sin \theta j)$$

Write each vector in trig form.

• a) $\vec{a} = \langle 2, -6 \rangle$

• b) $\vec{b} = -\vec{i} - 4\vec{j}$

Find the component form of each vector.

• a) $\vec{v} = 6 \langle \cos 120^\circ, \sin 120^\circ \rangle$

• b) $\vec{w} = 11(\cos 315^\circ \vec{i} + \sin 315^\circ \vec{j})$

Write your answer in component form.
Round to the nearest 100th.

$$\bullet 4(\cos 32^\circ \vec{i} + \sin 32^\circ \vec{j}) - 3(\cos 173^\circ \vec{i} + \sin 173^\circ \vec{j})$$

Find vector \vec{v} with the given magnitude
and the same direction as vector \vec{u} .

• a) $\|\vec{v}\| = 12$ $\vec{u} = \langle -2, 5 \rangle$ trig form: _____

same form: _____

• b) $\|\vec{v}\| = 12$ $\vec{u} = 4\vec{i} - \vec{j}$ trig form: _____

same form: _____