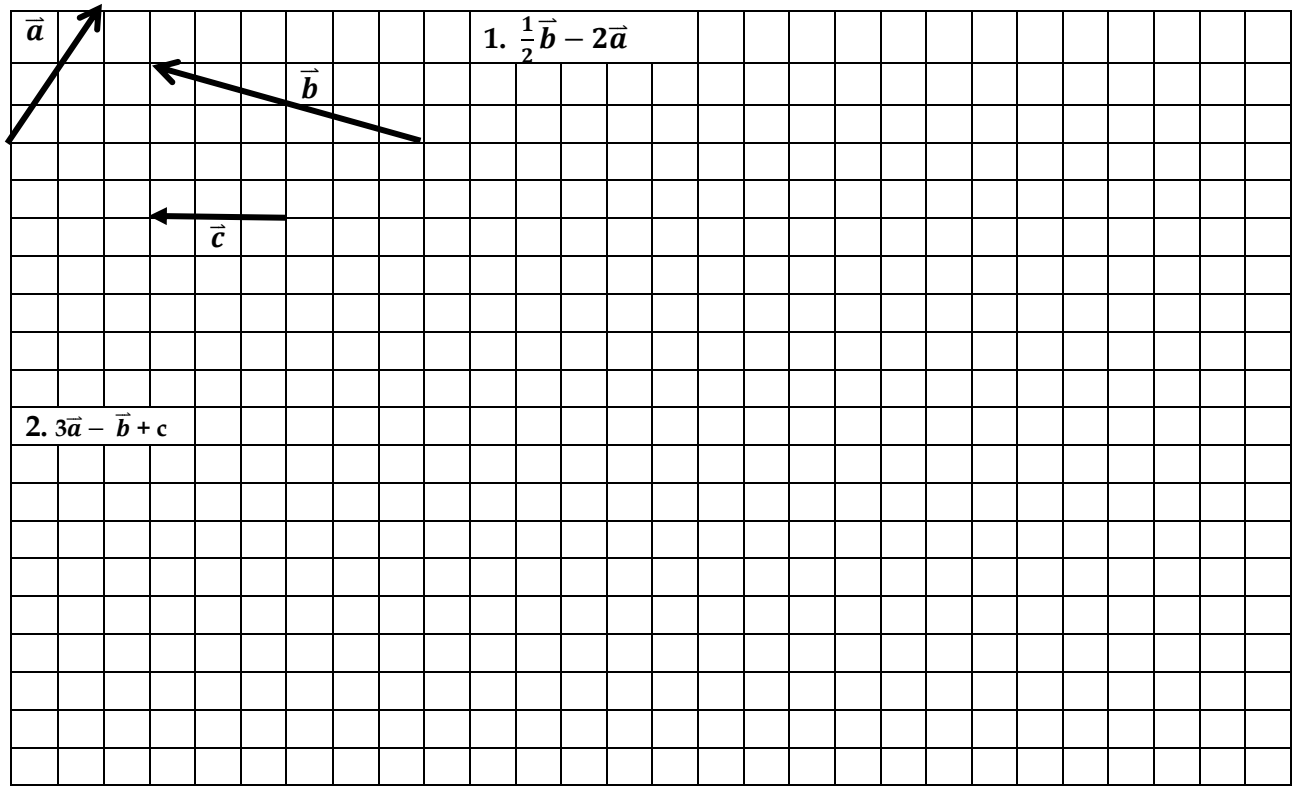
Accelerated Precalculus
6.08 Vector Quiz Review WS 2

The angle between 2 vectors: $\cos\theta = \frac{\vec{v}\cdot\vec{w}}{|\vec{v}|\,|\vec{w}|}$

Draw each and label the resultant. Then find the component form and magnitude of each resultant.



3. Given points A(-3, 6) and B(5, -4) with the initial& terminal point in alphabetical order, find the resulting vector $\vec{v}$ in component form. Find the magnitude and direction of vector.

4. The terminal point of ***vector*** $\vec{k}$ is B(-3, 4). If $\boldsymbol{k}$ = <1, -6>, find the initial point A.

5. Determine the measure of the angle made between $\boldsymbol{a}$ = <-1, -3> and $\boldsymbol{b}$ = <5, -6>.

6. Find $\boldsymbol{u} \cdot \boldsymbol{v}$ if $|\boldsymbol{u}| = 3$, $|\boldsymbol{v}| = 5$, and the angle between the vectors is $\theta = \frac{\pi}{6}$

Given: $\vec{u} = < 4, -8 >$, $\vec{v} = 2i - 3j$ and $\vec{w} = < 16,4 >$

7. a) Find: $-\overrightarrow{2u} - \frac{1}{4}\vec{w}$ b) $3\vec{v} - \frac{1}{2}\vec{u}$

Find the component form of $\vec{v}$ given the following.

8. $|\vec{v}| = 2, \theta = 120°$ 9. $|\vec{v}| = 2, \theta = 60°$

10. A boat is traveling west at 35 mph. The current is moving 60 degrees at 2 mph. What is the boat's resultant speed? What is the direction of the boat's movement?

11. Draw and label a vector with magnitude of 12 meters per second

At the direction of 330 degrees. Represent vector in component form.