

Quiz 1

Name: _____

Directions: Answer each question to the best of your ability. The number of points the question is worth follows the question.

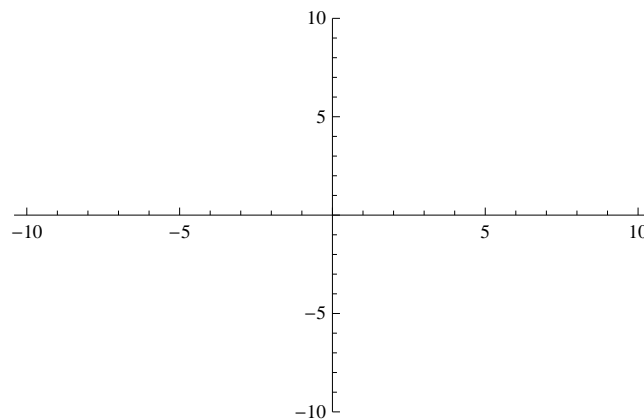
1. Given that $\vec{v} = \vec{i} - 2\vec{j}$ and $\vec{w} = 4\vec{i} + \vec{j}$, graph and label on the given set of coordinate axes: (2 pts each)

$$\vec{v} + \vec{w}$$

$$\vec{v} - \vec{w}$$

$$2\vec{w}$$

$$-3\vec{v}$$



2. What is the displacement vector from $(6,4,-2)$ to $(-3,-2,5)$ and its magnitude? (2 pts each)

3. State the components of a unit vector parallel to $\vec{v} = 9\vec{i} - 12\vec{j} + 20\vec{k}$ (2 pts)

4. A plane travels 400 *mph* at a direction 30 degrees north of east. Express the plane's trajectory as a vector in terms of i and j given that due east coincides with the positive x axis. (3 pts)
5. Jill starts swimming west directly across the Mississippi river at a rate of 8 *mph*. The current flows at a rate of 15 *mph* due south. After an hour of swimming, she reaches the shore. Express the displacement vector of Jill's swim in terms of bearing and magnitude (direction and speed). (3 pts)
6. Which is a valid source of information to prepare for each class lecture? (2 pts)
- (a) Online videos on Blackboard
 - (b) Khanacademy.org
 - (c) MIT Open CourseWare
 - (d) All of the above
7. Which of the following will NOT help you succeed in this class? (3 pts)
- (a) Seeking help when you need it
 - (b) Ignoring the pre-assessments and Wileyplus homework
 - (c) Preparing for each lecture by watching the Blackboard video
 - (d) Attending optional review sessions to get homework questions answered.