Vector Quiz 1

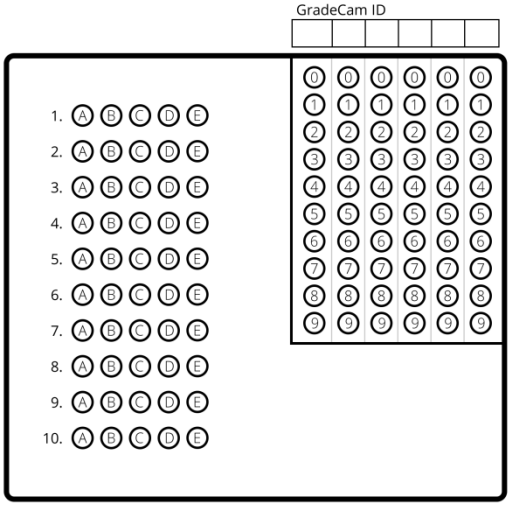
1. Two vectors of the same magnitude are added; one pointing east, one west. The magnitude of the resultant vector is

a. 0

b. 1

c. 2

d. 3



2. Which of the following is not a vector quantity?

a. velocity

b. Force

c. time

d. acceleration

3. A boat moves 10 km due west, 5 km due north, and then 10 km due east. The displacement of the boat from its initial position is

a. 5 km, North

b. 10 km, East

c. 5 km, South

d. 0 km

4. You walk 31 m south and 31 m west. Your displacement is

a. 22 m south west

b. 44 m south west

c. 44 m north west

d. 62 m south west

5. Two football players hit a blocking sled. One hits it with a force of 350 N, East, and the other hits it with a force of 270 N, South. The resulting force is:

a. 442 N, South-East

b. 620 N, South-East

c. 80 N, South-East

d. 20 N, South-East

6. The _____ theorem can be used to find the resultant of a right triangle

a. socratic

b. archemedes

c. pythagorean

d. none of the answers

7. A vector has both magnitude and _____.

a. mass

b. time

c. direction

d. none of the answers

8. A boat is rowed directly North across a river at 2.0 m/s. The river flows East at 3.0 m/s. Relative to the shore, the boat has a velocity of _____.

a. 5.0 m/s North-East

b. 3.6 m/s South-West

c. 3.6 m/s North-East

d. 1.0 m/s North-West

9. A hiker slides down an incline toward a stream. When at the stream, the hiker is 185 m below the top of the incline and has moved 105 m horizontally. Which of the following is the magnitude and direction of the hiker's displacement? (Hint: Imagine looking at hiker from the side.)

10. What are the x and y components of a vector that has a magnitude of 85 units and is at an 11° angle to the x-axis?