

1. When 2 force vectors are acting parallel and in the same direction, how do you compose them into one vector?
 - a) Add them
 - b) Subtract them
 - c) Divide them
 - d) Resolve them
2. Which of the following characteristics of a vector represents magnitude?
 - a) Its angle of orientation
 - b) Its length or size
 - c) Its direction
 - d) All of the above
3. If two uniplanar vectors are added together and the result is zero, then which of the following is true of the vector quantities?
 - a) They are equal in magnitude
 - b) They are opposite in direction
 - c) Both a) and b)
 - d) None of the above
4. Scalar quantities and vector quantities have which of the following properties in common?
 - a) Magnitude
 - b) Direction
 - c) Both a) and b)
 - d) None of the above
5. Which of the following statements is/are true regarding vector algebra?
 - a) In vector resolution, when a vector is resolved into two components, they are always perpendicular.
 - b) In vector composition, only perpendicular components can be composed into a resultant.
 - c) Both a) and b)
 - d) None of the above
6. The procedure of seeking the net force of several individual forces is called vector resolution. (True or False)
7. The “tip-to-tail” method is usually used to perform vector composition. (True or False)

1. Vector mechanics apply to which of the following?
 - a) Displacement
 - b) Velocity
 - c) Speed
 - d) Both a) and b)
 - e) All of above
2. If velocity is constant, then acceleration is what?
 - a) Zero
 - b) Constant, but not necessarily zero
 - c) Changing
 - d) Need more information
3. The Greek letter Δ (delta) is usually used to represent what?
 - a) Time
 - b) Displacement
 - c) Distance
 - d) Change in
4. Linear distance traveled per unit of time describes what?
 - a) Displacement
 - b) Velocity
 - c) Acceleration
 - d) Speed
5. Which of the following is NOT a kinematic quantity?
 - a) Distance
 - b) Displacement
 - c) Acceleration
 - d) Force
6. A runner completes 1 full lap around a 400-meter track. Her displacement is 400 meters. (True or False)
7. A runner moving at a velocity of 6 m/s increases the velocity in a 2-second time interval to a rate of 10 m/s. What is the acceleration?
 - a) 4 m/s^2
 - b) 4 m/s
 - c) 2 m/s^2
 - d) -2 m/s^2
8. When final velocity is larger than initial velocity, the average acceleration is what?
 - a) Zero
 - b) Negative
 - c) Positive
 - d) Need more information

9. Runner A changes her velocity from 8 m/s to 11 m/s. Runner B changes his from 7 m/s to 10 m/s. Who has the higher acceleration?
- a) A
 - b) B
 - c) Acceleration equal for both
 - d) Need more information
10. In a 5K road race, the finish line is also the starting line. What does 5K represent?
- a) Distance
 - b) Displacement
 - c) Speed
 - d) Velocity