

Vectors – Quiz

Question 1

What is a vector?

- A. A number without direction
- B. A mathematical object with magnitude and direction
- C. A line segment only
- D. A point in space
- E. An angle measurement

Question 2

How is the dot product of two vectors calculated?

- A. By subtracting their magnitudes.
- B. By multiplying corresponding coordinates and adding the results.
- C. By adding their magnitudes.
- D. By finding the angle between them.
- E. By dividing the coordinates of one vector by the coordinates of the other.

Question 3

What will always happen when you multiply a vector with a negative scalar?

- A. Its magnitude increases.
- B. Its direction reverses.
- C. It becomes a unit vector.
- D. Its magnitude becomes zero.
- E. Its components are divided.

Question 4

What is the dot product of two perpendicular vectors?

- A. 0
- B. 15
- C. 90
- D. 90 degrees
- E. 3.14