



Knowledge Check

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1

If $A = [2, -3, 7]$ and $B = [-4, 2, -4]$, find the dot product of the vectors A and B .

- A. 42
- B. -42
- C. 12
- D. 22



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- A. 42
- B. -42
- C. 12
- D. 22

The correct answer is **B**

$$A \cdot B = 2(-4) + (-3)(2) + 7(-4) = -8 - 6 - 28 = -42$$



Knowledge Check

2

What is/are true about scalars and vectors?

- A. Scalar quantities can be described by specifying only their magnitude
- B. Distance is an example of a vector quantity
- C. Vectors are represented using a lowercase letter with an arrow on top like x^{\rightarrow}
- D. Vector quantities require both magnitude and direction



Knowledge Check

2

What is/are true about scalars and vectors?

- A. Scalar quantities can be described by specifying only their magnitude
- B. Distance is an example of a vector quantity
- C. Vectors are represented using a lowercase letter with an arrow on top like x^{\rightarrow}
- D. Vector quantities require both magnitude and direction



The correct answer is **A, C, and D**

Scalar quantities can be described by specifying only their magnitude. Vectors require both magnitude and dimension and are represented using lowercase letters with an arrow on top.

Knowledge Check

3

What is the mode in statistics?

- A. The middle value in a data set
- B. The most frequently occurring data point in a data set
- C. The average value in a data set
- D. The difference between the largest and smallest data points in a data set



Knowledge Check

3

What is the mode in statistics?

- A. The middle value in a data set
- B. The most frequently occurring data point in a data set
- C. The average value in a data set
- D. The difference between the largest and smallest data points in a data set

The correct answer is **B**

Mode is the most frequently occurring data point in a data set.



Knowledge Check

4

What does a positive skewness value indicate?

- A. The data is skewed left, i.e., the left tail is longer than the right tail.
- B. The data is skewed right, i.e., the right tail is longer than the left tail.
- C. The data has a near 0 skewness.
- D. The data is symmetric.



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- C. The data has a near 0 skewness.
- D. The data is symmetric.



The correct answer is **B**

A positive skewness value indicates that the data is skewed right, i.e., the right tail is longer than the left tail.



Thank You