Knowledge Check

Knowledge Check 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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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

The correct answer is **B**

A.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 direction and are represented using lowercase letters with an arrow on top.

Knowledge Check

3

What is ‘mode’ in statistics?

A. The middle value in a dataset

B. The most frequently occurring data point in a dataset

C. The average value in a dataset

D. The difference between the largest and smallest data points in a dataset

Knowledge Check

3

What is the mode in statistics?

A. The middle value in a dataset

B. The most frequently occurring data point in a dataset

C. The average value in a dataset

D. The difference between the largest and smallest data points in a dataset

The correct answer is **B**

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

Knowledge Check

4

What does a positive skewness value indicate?

A. The data is skewed left, that is, the left tail is longer than the right tail.

B. The data is skewed right, that is, the right tail is longer than the left tail.

C. The data has a near 0 skewness.

D. The data is symmetric.

Knowledge Check

4

What does a positive skewness value indicate?

A. The data is skewed left, that is, the left tail is longer than the right tail.

B. The data is skewed right, that is, the right tail is longer than the left tail.

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, that is, the right tail is longer than the left tail.

Thank You