Knowledge Check

Knowledge Check 1

What is the mode of the given data 11,13,13,17,19,23,211,13,13,17,19,23,25?

A. 11

B. 13

C. 17

D. 23

Knowledge Check

1

What is the mode of the given data 11,13,13,17,19,23,211,13,13,17,19,23,25?

A. 11

B. 13

C. 17

D. 23

The correct answer is **B**

The value that appears most frequently; here, the number 13 is repeated twice.

Knowledge Check 2

Find the variance if the probability of hitting an object is 0.8.

A. 0.18

B. 0.16

C. 0.14

D. 0.12

Knowledge Check

2

Find the variance if the probability of hitting an object is 0.8.

A. 0.18

B. 0.16

C. 0.14

D. 0.12

The correct answer is **B**

Given p = 0.8,
q = 1 - p
q = 1 - 0.8 = 0.2, Therefore, mean = q = 0.2 and we know that variance = pq = (0.2) (0.8) = 0.16

Knowledge Check 3

E(X) = λ is used for which distribution?

A. Binomial distribution

B. Poisson's distribution

C. Bernoulli's distribution

D. Laplace distribution

Knowledge Check

3

E(X) = λ is used for which distribution?

A. Binomial distribution

B. Poisson's distribution

C. Bernoulli's distribution

D. Laplace distribution

The correct answer is **B**

In Poisson's distribution, a positive constant called λ is used, which is the mean and variance of the distribution. The Poisson distribution predicts how many of a certain type of event will occur in a bounded area or during a given period, provided that the events occur independently and cannot occur simultaneously. The events are sometimes called "outcomes".

Knowledge Check 4

Calculate the range of the given data sets: 7,47,8,42,47,95,42,96,2

A. 6

B. 94

C. 71

D. 84

Knowledge Check

4

Calculate the range of the given data sets: 7,47,8,42,47,95,42,96,2

A. 6

B. 94

C. 71

D. 84

The correct answer is **B**

Range = Maximum Value - Minimum Value

Here, the Maximum value in the data sets = 96, and the Minimum value = 2, therefore, Range = 96-2 = 94

Knowledge Check 5

If K is a variance between 0 and 4. Find the value of K(X2)

A. 32

B. 64

C. 27

D. 9

Knowledge Check

5

If K is a variance between 0 and 4. Find the value of K(X2)

A. 32

B. 64

C. 27

D. 9

The correct answer is **B**

Integrating $f(x) = X^2$ from 0 and 4 we get the value of $K(X^2) = 64$