Statistics MCQs

1) The runs scored by a batsman in 5 ODIs are 31,97,112, 63, and 12. The standard deviation is

1. 24.79
2. 23.79
3. 25.79
4. 26.79

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**Answer:** Option c

**Explanation:**

Here, first, we need to find mean

Statistics MCQs

= 31+97+112+12= 315/5 = 63

**Standard deviation** = [1/n (x(n)-mean)2]0.5

= 25.79

2) Find the mode of the call received on 7 consecutive day 11,13,13,17,19,23,25

1. 11
2. 13
3. 17
4. 23

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**Answer:** Option b

**Explanation:** Mode = The value that appears most frequent; here, the number 13 repeated twice.

3) Find the median of the call received on 7 consecutive days 11,13, 17, 13, 23,25,19

1. 13
2. 23
3. 25
4. 17

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**Answer:** Option d

**Explanation:**

Statistics MCQs

Where,

n = number of terms = 7

The median is the middle value of the data sets, so first, we need to arrange the number in ascending order 11,13,13,17,19,23,25

the middle one is 7+1/2 = 4th number

so, the 4th number is 17

4) Find the mode and median of the 9 consecutive number 12,7,8,14,21,23,27,7,11

9

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**Answer:** Option c

**Explanation:** Mode = The value that appears most frequent = 7 which is repeated twice. And,

Statistics MCQs

Where n = number of terms = 9

The median is the middle value of the data sets, so first, we need to arrange the number in ascending order 7,7,8,11,12,14,21,23,27

the middle one is 9+1/2 = 5th number

so, the 5th number is 12

5) When the Mean of a number is 18, what is the Mean of the sampling distribution?

1. 21
2. 18
3. 27
4. 23

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**Answer:** Option b

**Explanation:** In sampling distribution, the Mean of a number is equal to the Mean of the sampling distribution; hence the Mean of the number is 18 the Mean of the sampling distribution is 18.

6) If the probability of hitting an object is 0.8, find the variance

1. 0.18
2. 0.16
3. 0.14
4. 0.12

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7) If the probability that an object dropped from a certain height will strike the ground is 80 percent and if 12 objects are dropped from the same place, find the mean and variance.

1. 9.6,1.92
2. 8.6,1.92
3. 9.6,1.82
4. 8.6,1.82

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8) Find the mean of tossing 4 coins

1. 1
2. 2
3. 3
4. 4

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**Answer:** Option b

**Explanation:**

Here, p = ½ and q = ½

N = 4

Therefore, **Mean** = **np** = 4\*1/2 = 2

9) Variance of a constant 'x' is

1. 0
2. x/2
3. x
4. 1

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**Answer:** Option a

**Explanation:**

We know that, V(a) = **E (x2) - (E(a)2)**

= x2- x2 = 0

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

Binomial distribution

1. Poisson's distribution
2. Bernoulli's distribution
3. Laplace distribution

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**Answer:** Option b

**Explanation:** 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" or "observed occurrences."

11) The Mean of a constant 'x' is

1. 0
2. x/2
3. x
4. 1

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**Answer:** Option c

**Explanation:** The mean of the constant x is x.

12) If P(x) = 0.8 and x = 3, then find the value of E(x)

1. 2.6
2. 2.8
3. 2.2
4. 2.4

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**Answer:** Option d

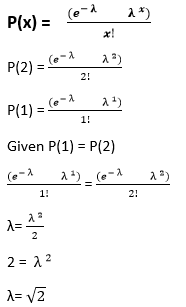
**Explanation:** We know that, E(x) = x P(x) = 0.8\*3 = 2.4

13) If P (1) = P (2) in Poisson's distribution, find the value of mean

  
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**Answer:** Option a

**Explanation:** We know the formula of Poisson's distribution,



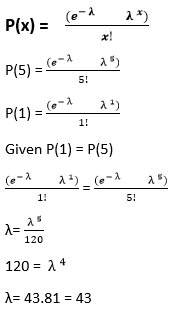
14) If P (1) = λ P (5) in Poisson's distribution, find the value of mean

1. 33.81
2. 53.81
3. 63.81
4. 43.81

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**Answer:** Option d

**Explanation:** We know the formula of Poisson's distribution,



15) Find the expectation of random variable a?

Statistics MCQs

1. 5.71
2. 4.71
3. 6.71
4. 8.71

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**Answer:** Option b

**Explanation:**

We know that,

E(X) = 0(1/7) + 1(2/7) + 2 (3/7) + 3(4/7) + 4(5/7)

0 + 2/7 + 6/7 + 12/7 + 20/7

= 5.71

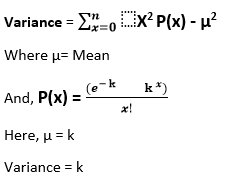
16) If K is the Mean of Poisson distribution, then the variance is given by

1. K/2
2. K
3. K2
4. K1/2

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**Answer:** Option b

**Explanation:** For a discrete probability distribution, the variance is given by the following equation



17) If K is the Mean of Poisson distribution, then the standard deviation is given by

1. √k
2. K2
3. K
4. k/2

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**Answer:** Option a

**Explanation:** A Poisson distribution with mean k is given by Variance = k

Therefore,

Standard Deviation = √variance = √k

18) Find the arithmetic mean of the set of data: 6,1,5,8, and 10

1. 4
2. 5
3. 6
4. 7

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19) Calculate the geometric Mean of 1,3,9,3

1. 1
2. 2
3. 3
4. 4

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**Answer:** Option c

**Explanation:**

In the given question, the total number is 4, so by using the formula to determine the geometric Mean, we have,

**G.M** = (1×3×9×3)1/4

= (81)1/4

= (34)1/4

= 3

20) Find the variance of the given data set: 3,9,5,6,7

1. 1
2. 2
3. 3
4. 4

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**Answer:** Option d

**Explanation:** If we want to calculate the variance, the first thing you need to do is find the Mean of the given data set,

Therefore,

Statistics MCQs

Then, we need to find the Variance V = (3-6)2 + (9-6)2 + (5-6)2 + (6-6)2 + (7-6)2/5

= 9+9+1+0+1 /5 = 20/5 = 4

21) Find the mean, mode and median of the given sets of data: 5,8,12,17,12,14,6,8, 12, and 10

1. 11,12,10
2. 10,12,13
3. 11,12,13
4. 10,12,11

Hide Answer Workspace

**Answer:** Option d

**Explanation:**

**Mean** = (5+8+12+13+12+14+6+8+12+10)/ 10 = 10

**Mode** = Mode is the most repeated value of the given data set.

= 12 (12 repeated 3 times in the set of data)

For median, first we need to arrange the value in ascending order in the given data set: 5,6,8,8,10,12,12,12,14,17. Here, the numbers 10 and 12 are the middle values. The average of the given number is 12+10/2 = 11. Hence, 11 is the median for the given data set. So, the value of Mean, mode, and median are 10,12,11

22) Find the mean mode and median of the messages received on 7 consecutive days 7,13,5,9,6,5,10

1. 7,8,9
2. 8,9,9
3. 8,8,9
4. 6,8,9

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**Answer:** Option b

**Explanation:**

**Mean** = (9+13+5+9+6+5+9)/7 = 56/7 = 8

**Mode** = Mode is the most repeated value of the given data set. = 9 (repeated 3 times in the set of data)

For median, first, we need to arrange the value in ascending order in the given data set: 5,5,6,9,9,9,13. Here, the number 9 is placed in the middle. Hence, 9 is the median for the given data set. So, the value of Mean, mode, and median are 8,9,9

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

1. 6
2. 94
3. 71
4. 84

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**Answer:** Option b

**Explanation:**

**Range = Maximum Value - Minimum Value**

Here, Maximum value in the data sets = 96, and Minimum value = 2

Therefore, **Range** = 96-2 = 94

24) Find the mean deviation according to the Mean of the given data sets 7,47,8,42,47,95,42,96,3

1. 11
2. 111
3. 112
4. 113

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**Answer:** Option b

**Explanation:**

If we want to calculate the mean deviation according to the Mean. First, we need to calculate the Mean of the given data sets

Therefore, **Mean** = 7+47+8+42+47+95+42+96+3/9 = 43

Now, we need to find the deviation to calculate mean deviation i.e.,

(43-7) +(47-43) +(43-8) +(43-42) +(47-43) +( 95-47) +(43-42) +(96-43) +(43-3) = 222

So,

Statistics MCQs