ARKANSAS STATISTICS · UNIT 1 · 25 QUESTIONS

Data and Distributions — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **The data values are 4, 6, 8, 10, and 12 The mean of the data is**



A 6

B 8

C 10

D 12

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2 **The data values in order are 3, 7, 9, 12, and 20 The median of the data is**

- A 7
- B 9
- C 12
- D 20

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3 **The data values in order are 2, 4, 6, and 8 The median of the data is**

- A 4
- B 6
- C 5
- D 8

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4 **The data values are 5, 8, 8, 11, and 14 The mode of the data is**

A 5

B 11

C 14

D 8

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5 **The smallest value is 5 and the largest value is 28 The range of the data is**



A 23

B 28

C 33

D 5

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6 **The first quartile is 12 and the third quartile is 27 The interquartile range is**

A 12

B 15

C 27

D 39

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7 **Standard deviation measures the**

A Center of a data set

B Largest value only

C Spread of data around the mean

D Number of values

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8 **A data set has a large outlier much larger than the other values The outlier will pull the mean**



A Downward strongly

B To the median exactly

C Not at all

D Upward strongly

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9 **A distribution is skewed to the right Its tail extends toward**

A Larger values

B Smaller values

C The center only

D Both ends equally

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10 **In a symmetric distribution the mean and the median are**

A Far apart

B Approximately equal

C Always zero

D Unrelated

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11 **In a boxplot, the line inside the box marks the**

- A Mean
- B Mode
- C Median
- D Maximum

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12 **The five number summary lists, in order, the minimum, the first quartile, the**

- A Mean, the third quartile, and the maximum
- B Mode, the third quartile, and the maximum
- C Maximum, the third quartile, and the mean
- D Median, the third quartile, and the maximum

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13 **A value is at the 80th percentile of a data set This means 80 percent of values are**

A At or below it

B Above it

C Equal to it

D Unrelated to it

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14 **A test score is 78, the mean is 70, and the standard deviation is 4 The z score of the test score is**

A 1

B 2

C 4

D 8

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15 **A z score of -1.5 means the value is**

A 1.5 standard deviations above the mean

B 1.5 units above the mean

C 1.5 standard deviations below the mean

D Equal to the mean

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16 **For a normal distribution, about 68 percent of values lie within**



A 2 standard deviations of the mean

B 3 standard deviations of the mean

C The range

D 1 standard deviation of the mean

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17 **For a normal distribution, about 95 percent of values lie within**

A 2 standard deviations of the mean

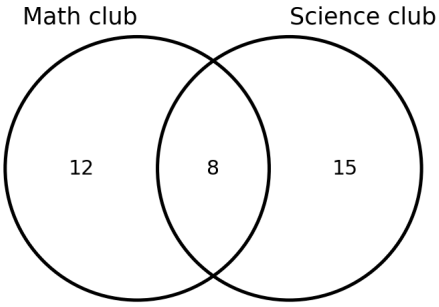
B 1 standard deviation of the mean

C 3 standard deviations of the mean

D The interquartile range

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18 **The diagram shows two groups of students 12 students are in the math club only, 8 are in both clubs, and 15 are in the science club only The total number of students in the math club is**



A 12

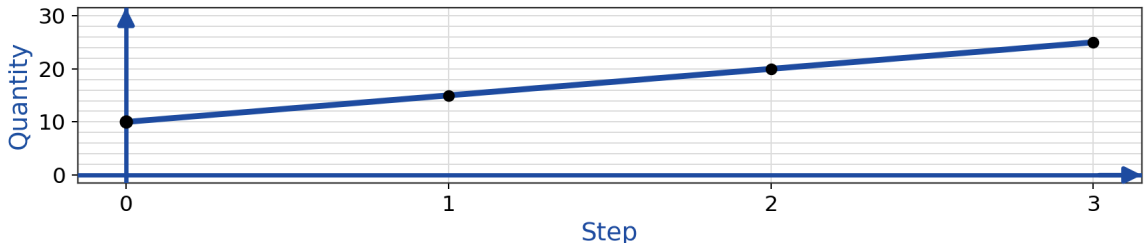
B 20

C 27

D 35

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19 **The graph shows a quantity rising from 10 to $\frac{25}{3}$ steps The total increase from the first value to the last value is**



A 10

B 25

C 15

D 35

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20 **A histogram shows most values clustered on the left with a long tail to the right The shape is best described as**

- A Symmetric
- B Skewed left
- C Uniform
- D Skewed right

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21 **The mean of a data set is 40 and the median is 32 The distribution is most likely**

- A Skewed right
- B Skewed left
- C Symmetric
- D Bimodal only

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22 **A categorical variable records**



A. A numerical measurement

B. A group or category

C. A standard deviation

D. A percentile

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23 **The data values are 10, 20, 30, and 40 What is the mean**

ANSWER _____

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24 **The smallest value is 18 and the largest value is 93 What is the range**

ANSWER _____

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25 **The first quartile is 20 and the third quartile is 45 What is the interquartile range**

ANSWER _____

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ANSWER KEY

1. B
2. B
3. C
4. D
5. A
6. B
7. C
8. D
9. A
10. B
11. C
12. D
13. A
14. B
15. C
16. D
17. A
18. B
19. C
20. D
21. A
22. B
23. 25
24. 75
25. 25

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