DATA ANALYSIS AND PROBABILITY - PRACTICE TEST | MISSOURI GEOMETRY · UNIT 4 · 25 QUESTIONS

Data Analysis and Probability, 25-question test — 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 are 4, 6, 8, 10, and 12. The mean is

Question 1

The data are 4, 6, 8, 10, and 12. The mean is

A) 10 B) 8

C) 6 D) 40

A 10

B 8

C 6

D 40

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2 The data are 3, 5, 7, 8, 9, and 12. The median is

Question 2

The data are 3, 5, 7, 8, 9, and 12. The median is

A) 7

B) 8

C) 7.5

D) 9

A 7

B 8

C 7.5

D 9

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3 The data are 2, 3, 3, 5, 7, and 3. The mode is

Question 3

The data are 2, 3, 3, 5, 7, and 3. The mode is

A) 2

B) 5

C) 7

D) 3

A 2

B 5

C 7

D 3

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4 The data range from 4 to 18. The range is

Question 4

The data range from 4 to 18. The range is

A) 14

B) 18

C) 4

D) 22

A 14

B 18

C 4

D 22

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5

The data are 2, 4, 6, 8, 10, 12, and 14. The first quartile is 4 and the third quartile is 12. The interquartile range is

Question 5

The data are 2, 4, 6, 8, 10, 12, and 14. The first quartile is 4 and the third quartile is 12. The interquartile range is

A) 10

B) 8

C) 6

D) 4

A 10

B 8

C 6

D 4

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6

The data are 2, 4, 4, 4, 5, 5, 7, and 9. The population standard deviation is

Question 6

The data are 2, 4, 4, 4, 5, 5, 7, and 9. The population standard deviation is

A) 4

B) 1.4

C) 2

D) 5

A 4

B 1.4

C 2

D 5

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7

The data are 4, 6, and 8. The mean absolute deviation, to one decimal place, is about

Question 7

The data are 4, 6, and 8. The mean absolute deviation, to one decimal place, is about

A) 2

B) 1.3

C) 0

D) 4

A 2

B 1.3

C 0

D 4

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8

A fair six sided die is rolled once. The probability of rolling a prime number is

Question 8

A fair six sided die is rolled once. The probability of rolling a prime number is

A) $\frac{1}{3}$

B) $\frac{2}{3}$

C) $\frac{1}{2}$

D) $\frac{1}{6}$

A 1/3

B 2/3

C 1/2

D 1/6

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9 Two fair coins are tossed. The probability of two heads is

Question 9

Two fair coins are tossed. The probability of two heads is

A) $\frac{1}{2}$

B) $\frac{3}{4}$

C) $\frac{1}{3}$

D) $\frac{1}{4}$

- **A** 1/2
- **B** 3/4
- **C** 1/3
- **D** 1/4

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10

A card is drawn from a standard deck. The probability of drawing an ace is

Question 10

A card is drawn from a standard deck. The probability of drawing an ace is

A) $\frac{1}{13}$

B) $\frac{1}{4}$

C) $\frac{1}{52}$

D) $\frac{4}{13}$

A 1/13

B 1/4

C 1/52

D 4/13

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11 The probability of rain tomorrow is 0.3. The probability of no rain is

Question 11

The probability of rain tomorrow is 0.3. The probability of no rain is

A) 0.3

B) 0.7

C) 1.3

D) 0.03

A 0.3

B 0.7

C 1.3

D 0.03

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12

A bag has 3 red balls and 2 blue balls. Two balls are drawn without replacement. The probability both are red is

Question 12

A bag has 3 red balls and 2 blue balls. Two balls are drawn without replacement. The probability both are red is

A) 0.6

B) 0.36

C) 0.3

D) 0.5

A 0.6

B 0.36

C 0.3

D 0.5

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13

A die is rolled and a coin is tossed. The probability of an even number and heads is

Question 13

A die is rolled and a coin is tossed. The probability of an even number and heads is

A) $\frac{1}{4}$

B) $\frac{1}{2}$

C) $\frac{3}{4}$

D) $\frac{1}{3}$

A 1/4

B 1/2

C 3/4

D 1/3

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14

In a survey of 50 students, 18 like both sports and music, 12 like sports only, 10 like music only, and 10 like neither. The probability a randomly chosen student likes sports is

Question 14

In a survey of 50 students, 18 like both sports and music, 12 like sports only, 10 like music only, and 10 like neither. The probability a randomly chosen student likes sports is

A) 0.36

B) 0.6

C) 0.24

D) 0.2

A 0.36

B 0.6

C 0.24

D 0.2

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15

Using the same survey, the probability a student likes music, given that the student likes sports, is

Question 15

Using the same survey, the probability a student likes music, given that the student likes sports, is

A) 0.36

B) 0.3

C) 0.72

D) 0.6

A 0.36

B 0.3

C 0.72

D 0.6

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16

A line of best fit is y = 2x + 3. The predicted value of y when x = 10 is

Question 16

A line of best fit is $y = 2x + 3$. The predicted value of y when $x = 10$ is

A) 20

B) 23

C) 13

D) 33

A 20

B 23

C 13

D 33

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17

For a data point, the actual value is 25 and the predicted value is 23. The residual is

Question 17

For a data point, the actual value is 25 and the predicted value is 23. The residual is

A) 2

B) −2

C) 48

D) 0

A 2

B -2

C 48

D 0

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18 A correlation coefficient of r = 0.92 indicates a

Question 18

A correlation coefficient of $r = 0.92$ indicates a

A) weak negative correlation

B) strong positive correlation

C) no correlation

D) weak positive correlation

A weak negative correlation

B strong positive correlation

C no correlation

D weak positive correlation

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19

In a scatter plot, as x increases, y tends to decrease. The correlation is

Question 19

In a scatter plot, as x increases, y tends to decrease. The correlation is

A) positive

B) none

C) negative

D) perfectly positive

A positive

B none

C negative

D perfectly positive

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20

Test scores are normally distributed with mean 100 and standard deviation 15. About what percent of scores are between 85 and 115?

Question 20

Test scores are normally distributed with mean 100 and standard deviation 15. About what percent of scores are between 85 and 115?

A) 95%

B) 68%

C) 99.7%

D) 50%

A 95%

B 68%

C 99.7%

D 50%

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21

A box plot has first quartile 12 and third quartile 28. The interquartile range is

Question 21

A box plot has first quartile 12 and third quartile 28. The interquartile range is

A) 16

B) 8

C) 35

D) 20

A 16

B 8

C 35

D 20

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22 Adding a very large outlier to a data set usually

Question 22

Adding a very large outlier to a data set usually

A) increases the median more than the mean

B) leaves both the mean and median unchanged

C) increases the mean more than the median

D) changes the mode the most

A increases the median more than the mean

B leaves both the mean and median unchanged

C increases the mean more than the median

D changes the mode the most

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23 Which sample is least likely to be biased for a school survey?

Question 23

Which sample is least likely to be biased for a school survey?

A) students in one class

B) volunteers only

C) the survey writers friends

D) a random sample from all students

- A students in one class
- B volunteers only
- C the survey writers friends
- D a random sample from all students

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24 The data are 6, 9, 12, 15, and 18. The mean is ____

Question 24

The data are 6, 9, 12, 15, and 18. The mean is ____

ANSWER _____

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25

A bag has 4 red balls and 6 blue balls. The probability of drawing a blue ball is _____

Question 25

A bag has 4 red balls and 6 blue balls. The probability of drawing a blue ball is ____

ANSWER

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ANSWER KEY

1. B
2. C
3. D
4. A
5. B
6. C
7. B
8. C
9. D
10. A
11. B
12. C
13. A
14. B
15. D
16. B
17. A
18. B
19. C
20. B
21. A
22. C
23. D
24. 12
25. 0.6

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