ARKANSAS STATISTICS · UNIT 4 · 10 QUESTIONS

Regression and Experiments — 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 **Interpolation uses a regression line to predict within the**

- A Range of observed x values
- B Future only
- C Past only
- D Control group

Understand It with Pulse | Flag a mistake

2 **An experiment differs from an observational study because in an experiment the researcher**

- A Observes without interfering
- B Imposes a treatment
- C Uses a larger sample
- D Avoids all bias

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3 **Random sampling is used to choose who is in a study, while random assignment is used to**

A Choose the population

B Increase the correlation

C Assign subjects to treatments

D Remove outliers

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4 **A single blind experiment is one in which the subjects do not know**

A The study exists

B The sample size

C The response variable

D Which treatment they received

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5 **Replication in an experiment means using enough subjects so that**

A Results are more reliable

B Bias disappears

C Correlation becomes causation

D The control group is removed

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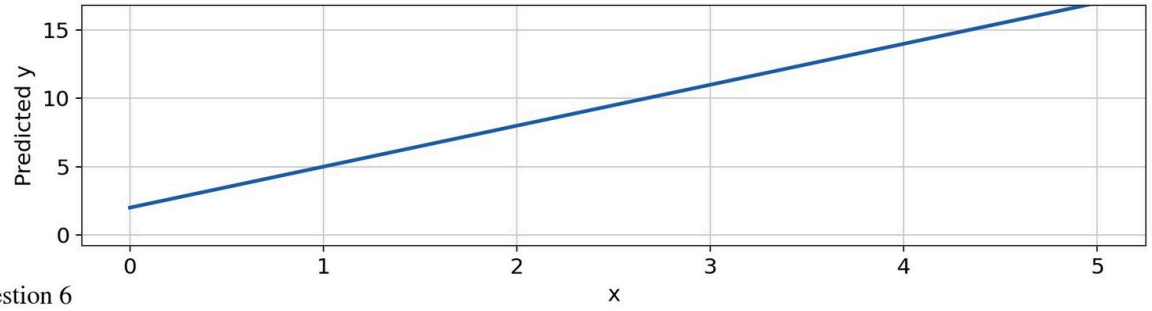
6

The graph shows a regression line with equation predicted y = 3x + 2 For x = 4 , the predicted y is



Question 6

The graph shows *a* regression line with equation predicted $y = 3x + 2$ For $x = 4$, the predicted y is

A) 12

B) 14

C) 10

D) 18

A 12

B 14

C 10

D 18

Understand It with Pulse

Flag a mistake

7 **A scatterplot with points falling from left to right shows a**

A Positive association

B No association

C Negative association

D Horizontal line

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8 **A response variable is the variable that is**

A Manipulated by the researcher

B Always categorical

C Never affected

D Measured as the outcome

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9 **An explanatory variable is the variable that may**

A Explain or influence the response

B Be the outcome measured

C Have no role

D Always be categorical

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10 **A regression equation is predicted y = 8 + 3x For x = 7 , what is the predicted y**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	A	**5.**	A	**9.**	A
2.	B	**6.**	B	**10.**	29
3.	C	**7.**	C		
4.	D	**8.**	D		

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