ARIZONA 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 **An influential point is one that has a large effect on the**



A Mean of x only

B Regression line

C Sample size

D Correlation sign only

Understand It with Pulse | Flag a mistake

2 **Random sampling chooses who is in a study. Random assignment chooses**



A The sample size

B Who gets which treatment

C The response variable

D Who is in the study

Understand It with Pulse | Flag a mistake

3 **Why do researchers use blocking before random assignment?**

- A Remove the control group
- B Increase bias
- C Hide treatments
- D Reduce variation within groups

Understand It with Pulse | Flag a mistake

4 **In a single blind experiment, the subjects do NOT know**

- A The sample size
- B Which treatment they received
- C The study purpose
- D The response variable

Understand It with Pulse | Flag a mistake

5 **Repeating an experiment with many subjects is called**

- A Replication
- B Confounding
- C Blinding
- D Blocking

Understand It with Pulse | Flag a mistake

6 **A matched pairs design pairs similar subjects and gives each pair**

- A The same treatment
- B No treatment
- C A placebo only
- D Different treatments

Understand It with Pulse | Flag a mistake

7 **If r = 0.6, then r^2 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **The regression line is $\hat{y} = 0.5x + 4$. The predicted value of y when x = 12 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **A correlation of 0 means there is no linear relationship It does NOT rule out a**

A Nonlinear relationship

B Positive relationship

C Linear relationship

D Negative relationship

Understand It with Pulse | Flag a mistake

10 **In an experiment, the variable measured as the outcome is the**

- A Response variable
- B Explanatory variable
- C Confounding variable
- D Lurking variable

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. B
2. B
3. D
4. B
5. A
6. D
7. 0.36
8. 10
9. A
10. A

© 2026 Brett Robbins. All Rights Reserved.