

Exploring Statistical Concepts

Statistics · Answer Key · 12 Questions

1. Which of the following is an example of categorical data?

- A) The height of a student in centimeters
- B) The number of goals scored in a soccer match
- C) The colour of a car**
- D) The temperature in degrees Celsius

2. What is the median of the following dataset: 5, 12, 8, 15, 10?

- A) 8
- B) 10**
- C) 9
- D) 12

3. If a dataset has a mean of 75 and a standard deviation of 10, what does the standard deviation represent?

- A) The average value of the data points
- B) The most frequent value in the dataset
- C) The spread or dispersion of the data points around the mean**
- D) The total sum of all data points

4. In probability, what is the sum of probabilities for all possible outcomes of an event?

- A) Less than 1
- B) Exactly 0
- C) Exactly 1**
- D) Greater than 1

5. What does a positive correlation between two variables indicate?

- A) As one variable increases, the other variable decreases
- B) As one variable increases, the other variable also tends to increase**
- C) There is no relationship between the two variables
- D) One variable causes the other to change

6. Which statistical measure is most affected by outliers?

- A) Median
- B) Mode
- C) Range
- D) Mean**

7. What is the mode of the dataset: 2, 3, 3, 4, 5, 5, 5, 6?

- A) 3
- B) 4
- C) 5**
- D) 6

8. A fair six-sided die is rolled. What is the probability of rolling a number greater than 4?

- A) $\frac{1}{6}$
- B) $\frac{2}{6}$**
- C) $\frac{3}{6}$
- D) $\frac{4}{6}$

9. What type of data is collected through surveys asking for opinions on a scale of 1 to 5?

- A) Nominal data
- B) Ordinal data**
- C) Interval data
- D) Ratio data

10. The range of a dataset is calculated by:

- A) Adding the smallest and largest values
- B) Subtracting the smallest value from the largest value**
- C) Finding the average of the smallest and largest values
- D) Counting the number of values in the dataset

11. If the probability of event A happening is 0.7, what is the probability of event A NOT happening?

- A) 0.3**
- B) 0.7
- C) 1.0
- D) 1.7

12. Which of the following is a measure of dispersion?

- A) Mean
- B) Median
- C) Interquartile Range**
- D) Mode