### Quiz: Basic Statistics - 2

1. What is the measure of central tendency that is most sensitive to outliers?

- A) Mean

- B) Median

- C) Mode

- D) None of the above

2. Which of the following is not a measure of dispersion?

- A) Range

- B) Variance

- C) Standard deviation

- D) Median

3. What is a random variable?

- A) A variable that has a single value

- B) A variable that can take on any value within a certain range

- C) A variable that is not affected by other variables

- D) A variable that is not used in statistical analysis

4. Which of the following is a subset of a set?

- A) Union

- B) Intersection

- C) Complement

- D) Cardinality

5. Which of the following measures of dispersion gives us an idea about the spread of the data around the median?

- A) Variance

- B) Standard deviation

- C) Range

- D) Interquartile range

6. Which of the following is not a set?

- A) {1, 2, 3}

- B) {cat, dog, bird}

- C) {blue, red, green, 4}

- D) 5

7. Which measure of dispersion is highly sensitive to outliers?

- A) Variance

- B) Standard deviation

- C) Range

- D) Interquartile range

### Answers

1. \*\*A) Mean\*\*

- The mean is the measure of central tendency most sensitive to outliers.

2. \*\*D) Median\*\*

- The median is a measure of central tendency, not dispersion.

3. \*\*B) A variable that can take on any value within a certain range\*\*

- A random variable is a variable that can take on any value within a certain range.

4. \*\*C) Complement\*\*

- A complement is a subset of a set, representing elements not in the subset.

5. \*\*D) Interquartile range\*\*

- The interquartile range measures the spread of the data around the median.

6. \*\*D) 5\*\*

- A single number like 5 is not considered a set.

7. \*\*C) Range\*\*

- The range is highly sensitive to outliers because it is the difference between the maximum and minimum values.