Test Your Knowledge: Probability and Statistics

1. True /False: A stem-and-leaf plot shows the median of the data.

2. Which of the following is considered an example of skewed data?
   a) 4, 5, 6, 7, 8.
   b) 34, 37, 42, 45.
   c) 8, 9, 100, 102, 134.
   d) 101, 103, 104, 105.

3. In a data set what is the mode of the data?

4. In a data set that can be linearized using (log x, log y), which type of equation is needed to fit the original data?

5. True/False: A correlation coefficient equal to one means that there is a direct correlation between the independent and dependent variables.

6. What is the probability of choosing a red marble from a bag containing 10 blue marbles, 3 green marbles, and 7 yellow marbles?
   a) 10/20.
   b) 0.
   c) 7/20.
   d) 3/20.

7. True/False: If two events must occur, then the probabilities of each event must be added together.

8. Consider the data set: {10, 2, 15, 7, 8, 20}. What is the probability of choosing a number that is divisible by 5 or divisible by 2?
   a) 1/3.
   b) 2/3.
   c) 1/2.
   d) 5/6.

9. If a circle is inscribed in a rectangle and the area outside of the circle but inside of the rectangle is shaded, how would you calculate the area of the shaded region?

   a) Divide the area of the rectangle from the area of the circle.
   b) Add the area of the rectangle from the area of the circle.
   c) Subtract the area of the circle from the area of the rectangle.
   d) Subtract the area of the rectangle from the area of the circle.