Assignment 3

The due date for submitting this assignment has passed. As per our class rules, you have not submitted this assignment.

1) Calculate correlation coefficient for the given dataset.
   
   \[
   \begin{array}{c|c|c|c|c|c|c}
   x & 1 & 2 & 3 & 4 & 5 & 6 \\
   y & 5 & 6 & 8 & 9 & 10 & 11 \\
   \end{array}
   \]

   Find the table given in Q.1 if the equation is given by \( y = ax + b \), then the value of the correlation coefficient.

   Accepted Answers: 0.8

2) What can be the probable value of correlation coefficient in given graph?

   Accepted Answers: 0.8

3) No sign is incorrect.

   Answer: Correct

4) If \( A \) and \( B \) are two independent events, and \( P(A) = 0.5 \) and \( P(B) = 0.5 \), what is \( P(A \cup B) \)?

   Accepted Answers: 0.2

5) No. The answer is incorrect.

   Correct Answer: 0.2

6) If \( x = 11, 12, 13, 14, 15, 16 \), and \( y = 2, 3, 4, 5, 6, 7 \), how many elements are there in \( x \cap y \)?

   Correct Answer: 3

7) Find the value of \( k \) if equation of line is \( y = mx + c \) where \( m = 1 \).

   \[ y = 2x + 3 \]

   Accepted Answers: 2

8) If \( A \) and \( B \) are two independent events, and \( P(A) = 0.5 \) and \( P(B) = 0.5 \), what is \( P(A \cap B) \)?

   Correct Answer: 0.25

9) What is the probability of an event if occurring?

   \[ \begin{array}{c}
   A \quad B \\
   \end{array} \]

   Accepted Answers: 0.5

10) Which of the following expression is true about correlation coefficient \( r \)?

    \[ r = 1 \]

    Accepted Answers: Correct

11) Choosing the best fitting what does \( r = 1 \) represents?

   Correct Answer: 0.5

12) No. The answer is incorrect.

   Correct Answer: 0.5

13) No sign is incorrect.

   Answer: Correct

   Accepted Answers: Correct

   Correct Answer: 0.5