Statistics and Probability

ACMSP168

Name: ____________________________

Score: _______________________________________

Teacher: _______________________________________

Q.1. Choose which item best reflects the probability: the sun will rise tomorrow.
   a) Impossible  b) Unlikely  c) 50:50  d) Likely  e) Certain

Q.2. Choose which item best reflects the probability: Someone you met at random today will be having a birthday tomorrow.
   a) Impossible  b) Unlikely  c) 50:50  d) Likely  e) Certain

Q.3. Choose which item best reflects the probability: A fair coin lands with 'Tails' face up.
   a) Impossible  b) Unlikely  c) 50:50  d) Likely  e) Certain

Q.4. What is the probability a card selected from a deck of 52 playing cards is a heart?
   a) \( \frac{1}{52} \)  b) \( \frac{4}{52} \) or \( \frac{1}{13} \)  c) \( \frac{13}{52} \) or \( \frac{1}{4} \)  d) \( \frac{26}{52} \) or \( \frac{1}{2} \)  e) \( \frac{52}{52} \) or 1

Q.5. A bag contains 3 red, 4 blue and 5 green marbles. What is the probability a marble selected at random will be blue?
   a) 1  b) 4  c) \( \frac{3}{12} \) or \( \frac{1}{4} \)  d) \( \frac{4}{12} \) or \( \frac{1}{3} \)  e) \( \frac{5}{12} \)

Q.6. A bag contains 3 red, 4 blue and 5 green marbles. What is the probability a marble selected at random will NOT be green?
   a) 3  b) 4  c) 5  d) \( \frac{5}{12} \)  e) \( \frac{7}{12} \)

Q.7. A class has 10 boys and 13 girls. A student is selected at random. What is the probability the student is a girl?
   a) 1  b) 3  c) \( \frac{13}{10} \)  d) \( \frac{10}{13} \)  e) \( \frac{13}{23} \)
Q.8. Two coins are tossed. What is the probability that one lands on heads and the other on tails?
   a) \( \frac{1}{4} \)  
   b) \( \frac{1}{3} \)  
   c) \( \frac{1}{2} \)  
   d) \( \frac{2}{3} \)  
   e) 1

Q.9. A number is selected at random from the set of numbers \( \{1, 2, 3, 4, 5, 6, 7, 8, 9\} \). What is the probability the number is even?
   a) \( \frac{1}{2} \)  
   b) \( \frac{4}{9} \)  
   c) \( \frac{4}{5} \)  
   d) \( \frac{5}{10} \) or \( \frac{2}{5} \)  

Q.10. A fair coin is tossed four times. The outcomes are T, H, H, H. The probability the next toss will be a head is:
   a) \( \frac{1}{16} \)  
   b) \( \frac{1}{5} \)  
   c) \( \frac{4}{5} \)  
   d) \( \frac{1}{4} \)  
   e) \( \frac{1}{2} \)