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) \( \frac{4}{52} \text{ or } \frac{1}{13} \)   c) \( \frac{13}{52} \text{ or } \frac{1}{4} \)
   d) \( \frac{26}{52} \text{ or } \frac{1}{2} \)   e) \( \frac{52}{52} \text{ or } 1 \)

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) \( \frac{3}{12} \text{ or } \frac{1}{4} \)   d) \( \frac{4}{12} \text{ or } \frac{1}{3} \)   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) 4  

d) 5  

e) $\frac{4}{10}$ 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) $\frac{1}{2}$