

## Probability #3

### Find the probability.

- 1) A box of chocolates contains four milk chocolates and six dark chocolates. You randomly pick a chocolate and eat it. Then you randomly pick another piece. The first piece is milk chocolate and the second piece is dark chocolate.
- 2) A basket contains eight apples and seven peaches. You randomly select one piece of fruit and eat it. Then you randomly select another piece of fruit. The first piece of fruit is an apple and the second piece is a peach.
- 3) A bag contains three red marbles and eight blue marbles. You randomly pick a marble and then pick a second marble without returning the marbles to the bag. The first marble is red and the second marble is blue.
- 4) There are sixteen shirts in your closet, eight blue and eight green. You randomly select one to wear on Monday and then a different one on Tuesday. You wear blue shirts both days.
- 5) There are five nickels and seven dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. The first coin is a nickel and the second coin is a dime.
- 6) A bag contains seven red marbles and eight blue marbles. You randomly pick a marble and then pick a second marble without returning the marbles to the bag. The first marble is red and the second marble is blue.

- 7) A box of chocolates contains seven milk chocolates and seven dark chocolates. You randomly pick a chocolate and eat it. Then you randomly pick another piece. Both pieces are milk chocolate.
- 8) Your sock drawer has four white socks, four brown socks, and two black socks. You randomly pick a sock and put it on your left foot and then pick another sock and put it on your right foot. You leave the house with a white sock on your left foot and a brown sock on your right foot.
- 9) There are eleven shirts in your closet, three blue, four green, and four red. You randomly select a different shirt each day. You wear a blue shirt on Monday, Tuesday, and Wednesday.
- 10) There are nine shirts in your closet, three blue, three green, and three red. You randomly select a different shirt each day. You wear a blue shirt on Monday, Tuesday, and Wednesday.
- 11) There are three nickels, three dimes, and five quarters in your pocket. You randomly pick three coins and place them on a counter. The first two coins are a dimes, and the third is a quarter.
- 12) A bag contains three red marbles, three blue marbles, and three yellow marbles. You randomly pick three marbles without replacement. The first marble is red, the second marble is blue, and the third marble is red.
- 13) A bag contains six red marbles and five blue marbles. You randomly pick a marble and then pick a second marble without returning the marbles to the bag. The first marble is red and the second marble is blue.
- 14) There are twelve shirts in your closet, five blue, four green, and three red. You randomly select a different shirt each day. You wear a blue shirt on Monday, a green shirt on Tuesday, and a red shirt on Wednesday.

### Answers to Probability #3

1)  $\frac{4}{15} \approx 0.267$

2)  $\frac{4}{15} \approx 0.267$

3)  $\frac{12}{55} \approx 0.218$

4)  $\frac{7}{30} \approx 0.233$

5)  $\frac{35}{132} \approx 0.265$

6)  $\frac{4}{15} \approx 0.267$

7)  $\frac{3}{13} \approx 0.231$

8)  $\frac{8}{45} \approx 0.178$

9)  $\frac{1}{165} \approx 0.006$

10)  $\frac{1}{84} \approx 0.012$

11)  $\frac{1}{33} \approx 0.03$

12)  $\frac{1}{28} \approx 0.036$

13)  $\frac{3}{11} \approx 0.273$

14)  $\frac{1}{22} \approx 0.045$