Probability WS 2   **Name** _____

Write answers as reduced fractions.

1. Write the probability of each event below:

   a. You will have a conversation with someone today

   b. The sun will set tonight

   c. You will flips heads on a coin

   d. A cat will fly by itself

   e. You will watch a movie tonight

   f. You will read a whole novel in one hour

2. A coin is tossed and a die is rolled at the same time.

   a. What is the probability of throwing a head and rolling a 1, 2, or 3?

   b. What is the probability of rolling a tail and an even number?

   c. What is the probability of rolling a head a number larger than four?

3. A card is drawn from a normal 52 card deck. The card number and suit are noted then the card is replaced in the deck and another card is drawn. What is the probability that:

   a. The first card was a queen and the second was a ten?

   b. The first card was the queen of hearts and the second card was an eight?

   c. Both cards were jacks?

   d. Both cards were not face cards?

   e. The first card was a five of spades and the second was the ace of hearts?

4. Three blue balls and one red ball are placed in a box. A ball is drawn and noted and then replaced and the second ball is drawn. What is the probability that:

   a. Two blue balls are removed?

   b. One red ball and one blue ball are removed?

   c. No blue balls are removed?

5. You have three pieces of paper in an envelope. The pieces of paper are numbered one, two, and three. You draw and replace a piece of paper three times. What is the probability that the numbers you drew were:

   a. 1,2,3 in that order?

   b. 2,2,2 in that order?

6. If Shelby usually sinks 8 of 10 baskets she tries, how many baskets would expect her to sink in a game where she tries to sink the ball:

   a. Three times?

   b. Ten times?

   c. Fifty times?

   d. What is the pattern to solving this equation?

7. At a restaurant, you can choose from three different beverages (soda, juice, water) and two dinners (hamburger or spaghetti). Make a tree diagram to list all possible meal combinations.

8. The Funville Fair has three rides (waterslide, roller coaster, race track). You have time to take any two of the rides that you would like. List all possible ways of riding. (You may repeat a ride! I love roller coasters ☺)

9. Basic Bill, has the following choices for outdoor apparel: footwear (boots, sneakers), outerwear (parka, raincoat, jean jacket), and hat (baseball cap, beanie with pinwheel, and cowboy hat). How many possible outcomes are there for Bill if he must wear one of each item?