Advanced Functions	Name:	
Probability Practice Test		
	Date:	

1. The following corn maze was designed by a local corn farmer. The farmer will charge \$7 per entry. If you successfully complete the maze without making any mistakes, you will win \$100. 600 people come through the maze in the first night.

How much profit can the farmer predict he will make by the end of the evening?



2. The NCAA Basketball tournament is one of the most anticipated events in college sports. The best player on your favorite team is a 73% free throw shooter. Assume this player has a chance to shoot two free throws. What is the probability he/she will...

- a. ...make 0 out of 2 baskets.
- b. ...make 1 out of 2 baskets.
- c. ...make 2 out of 2 baskets.

3. How many ways can you select a security code on a home alarm system if the alarm has a number pad with the digits 0-9 on them, and your code must be 5 digits long and no numbers can repeat?

4. A dress pattern offers 3 styles of skirts, three styles of sleeves, and four different collars. How many different types of dresses are available from one pattern?

5. An experiment consists of tossing a coin four times. What is the probability of getting zero heads?

6. A toddler has wooden blocks showing the letters R, X, O, E, I. Find the probability that the child arranges the letters in the order ROXIE.

7. A toddler has wooden blocks showing the letters A, A, E, G, R, R, N. Find the probability that the child arranges the letters in the order ARRANGE.

8. If you roll a pair of dice...

- a. Find the probability both dice show the same number.
- b. Find the probability the sum is seven or 12.

9. If you roll two dice at the same time, find the probability you roll of a sum of 4 or at least one die shows a 4.

10. If you select one card out of a deck of 52...

- a. Probability it is black or a spade?
- b. Probability it is a king or a heart?
- c. Probability it is a 2 and red.

11. You flip a coin 100 times. Your data set shows you flipped "tails" 48 times. What is your empirical probability of getting tails?

- 12. What is the probability of getting 7 tails if you flip 8 coins?
- 13. What is the probability you are dealt 3 cards and they are all different suits?

14. What is the probability you will make 2 out of 3 free throws if you are a 62% free throw shooter?

Probability Test

Hints:

Standard Deck of Cards

52 cards in a deck
26 red cards in a deck - 13 Diamonds, 13 Hearts
26 black cards in a deck, 13 clubs, 13 spades
4 of each rank (Twos through Aces)
Face Cards are considered Jacks, Queens, and Kings

Rolling Two Dice:

11	21	31	41	51	61
12	22	32	42	52	62
13	23	33	43	53	63
14	24	34	44	54	64
15	25	35	45	55	65
16	26	36	46	56	66