Good Morning!

Today you will need:

- Review packet
- graph spiral
- pencil
- calculator
- correcting pen

Warm-Up

In your graph spiral, answer the following questions:

When Jenna goes to the farmer's market, she usually buys some broccoli. The possible number of heads of broccoli and the probabilities are in the table below.

Number of Heads of Broccoli	0	1	2	3	4
Probability	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{5}{12}$	$\frac{1}{4}$	$\frac{1}{12}$

1. What is the probability she buys <u>at least</u> 3 heads of broccoli?

2. If Jenna goes to the market 100 times, how many times can she expect to buy <u>exactly</u> 3 heads of broccoli?

Class Time

Use your time wisely to finish the Unit Test Review packet.

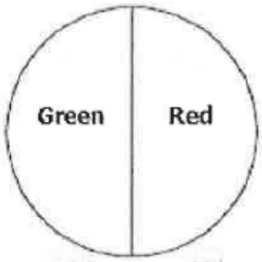
We will be correcting the packet at _____.

If you finish early, you can:

- re-do homework or Learning Check problems that you got wrong
- work on extra practice worksheets

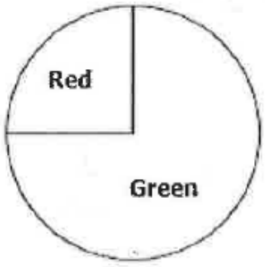
1. Below are three different spinners. On which spinner is green *likely* to be spun, *unlikely* to be spun, and *neither likely nor unlikely* to be spun?

Spinner A



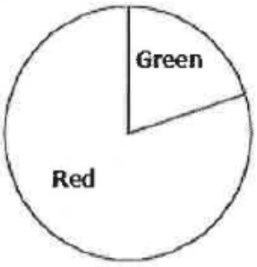
neither likely nor unlikely

Spinner B



likely

Spinner C



unlikely

2. A student brought a very large jar of animal crackers to share with students in class. The student randomly chose 20 crackers from the jar, and recorded the results in the table below.

Lion	2
Camel	1
Monkey	4
Elephant	5
Zebra	3
Penguin	3
Tortoise	2
	Total 20

a. What is the experimental probability of selecting a zebra? Express your answer as a fraction, decimal, and percent.

$P(\text{zebra}) = \frac{3}{20} = 0.15 = 15\%$

b. Based on the probability, how many zebra would you expect there to be in the jar, if there are 500 animal crackers in the jar?

$\frac{3}{20} \cdot 500 = 75$ zebras

3. Last year Bob's Bikes produced 10,000 bikes. Of these, 20 bikes were defective. Based on the experimental probability, how many bikes will be defective out of the next 1,000 bikes produced?

$\frac{20}{10,000} \cdot 1000 = 2$ defective bikes

4. A chance experiment consists of flipping a coin and rolling a number cube.

   a. What is the sample space of this chance experiment?

H-1	H-4	T-1	T-4
H-2	H-5	T-2	T-5
H-3	H-6	T-3	T-6

   b. What is the theoretical probability of getting heads on the coin and 3 on the number cube?

$P(\text{heads and } 3) = \frac{1}{12}$

   c. What is the theoretical probability of getting tails on the coin and an even number on the number cube?

$P(\text{tails and even}) = \frac{3}{12} = \frac{1}{4}$

5. Jenna's husband Rick is concerned about his diet. On any given day, he eats 0, 1, 2, 3, or 4 servings of fruit and vegetables. The probabilities are given in the table below.

Number of Servings of Fruit and Vegetables	0	1	2	3	4
Probability	0.08	0.13	0.28	0.39	0.12

a. What is the probability Rick eats 1 serving of fruits and vegetables?

P(1 serving) = 0.13

b. What is the probability Rick eats more than 1 serving of fruits and vegetables?

P(more than 1 serving) = 0.28 + 0.39 + 0.12 = 0.79

c. What is the probability Rick eats at least 3 servings of fruits and vegetables?

P(at least 3 servings) = 0.39 + 0.12 = 0.51

d. What is the probability Rick does not eat exactly 4 servings of fruits and vegetables?

P(not exactly 4 servings) = 1 - 0.12 = 0.88

6. The faces of one six-sided number cube are labeled 1, 1, 1, 2, 2, 3. The faces of a second number cube are labeled 0, 0, 0, 0, 2, 2. The two cubes are rolled, and the results are added.

   a. Create an area model to represent this situation, and find all the possible outcomes.

cube 2

cube 1	0	0	0	0	2	2
1	1	1	1	1	3	3
1	1	1	1	1	3	3
1	1	1	1	1	3	3
2	2	2	2	2	4	4
2	2	2	2	2	4	4
3	3	3	3	3	5	5

   b. What is the probability of rolling a sum of 1?

$$P(\text{sum of } 1) = \frac{12}{36} = \frac{1}{3}$$

   c. What is the probability of rolling a sum of 3 or 5?

$$P(\text{sum of 3 or 5}) = \frac{12}{36} = \frac{1}{3}$$

7. You spin each of the spinners below once, and then multiply the results.

   a. Create an area model to represent this situation, and find all the possible outcomes.

spinner 1 \ spinner 2	4	-3	-1
4	16	-12	-4
-3	-12	9	3
-1	-4	3	1

   b. What is the probability of spinning a positive product?

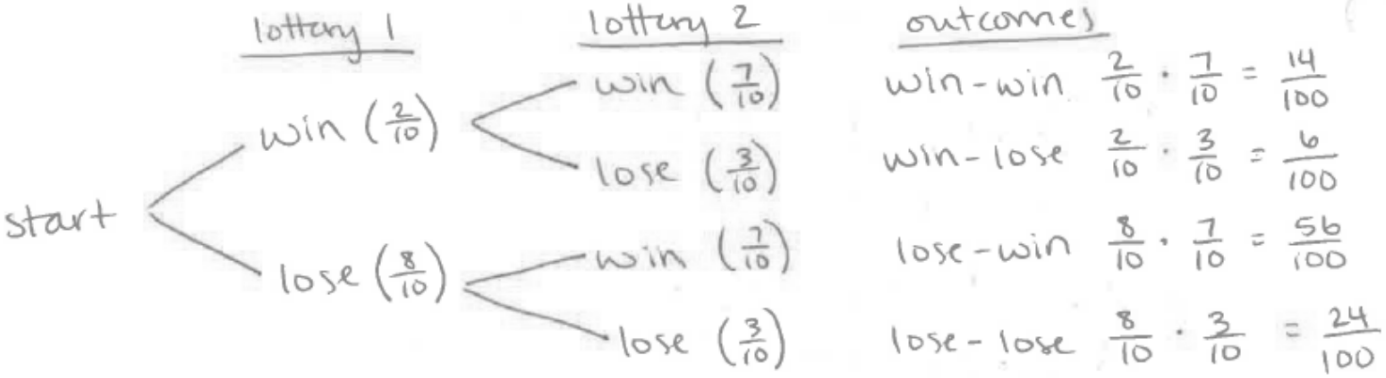
P(positive product) = $\frac{5}{9}$

   c. What is the probability of spinning a negative product?

P(negative product) = $\frac{4}{9}$

8. Kelly has entered 2 different lotteries. There is a 2/10 chance she will win the first lottery and a 7/10 chance she will win the second lottery.

   a. Make weighted probability tree to show all the possible outcomes of these two lotteries.



   b. What is the probability that she will win both lotteries?

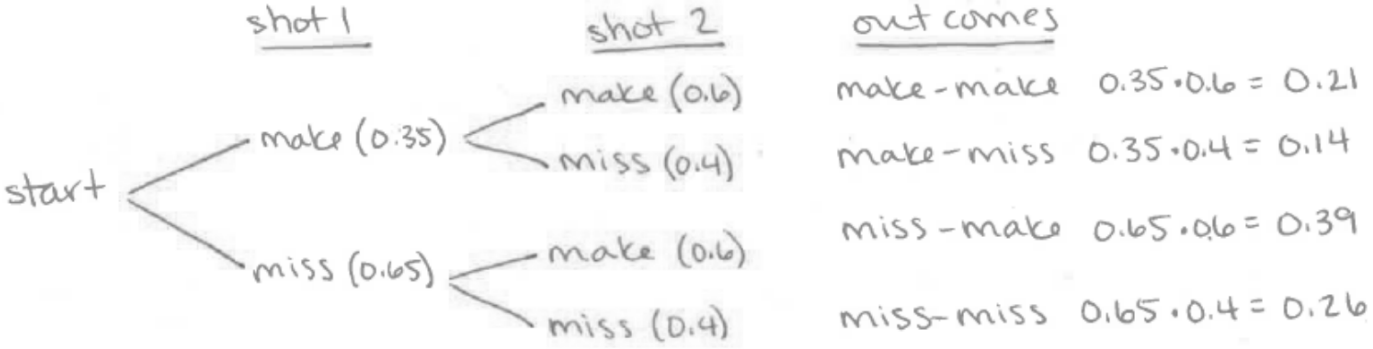
$$P(\text{win both}) = \frac{14}{100} = \frac{7}{50}$$

   c. What is the probability that she will only win one of the lotteries?

$$P(\text{win only one}) = \frac{6}{100} + \frac{56}{100} = \frac{62}{100} = \frac{31}{50}$$

9. Mark attempts two free throws at the basketball game. He has a 35% shooting record on the first shot, and 60% on the second shot.

   a. Make weighted probability tree to represent all the possible outcomes of shooting two free throws.



   b. What is the probability that he will make both free throws?

P(make both) = 0.21 = 21%

   c. What is the probability that he will miss *at least* one free throw?

P(miss at least one) = 0.14 + 0.39 + 0.26 = 0.79 = 79%

Preparing for a Test

Some things you can do to study for a test:

- finish any assignments that were incomplete or uncorrected
- re-do homework or Learning Check problems that you got wrong
- extra practice worksheets on Miss Hoyt's website
- review/make flashcards for difficult vocab words or important concepts

Homework:

study and bring silent reading book

(optional extra practice worksheets will be available on my website)