Name _____ **Assessment SOL 5.15 Probability**

1. The chart shows the different shirts, pants, and shoes Simon has in his closet.

Outfit Choices

Color of Shirt	Color of Pants	Type of Shoes
Navy (N)	Khaki (K)	Boots (B)
Red (R)	Grey (G)	Sneakers (S)
White (W)		

Which lists all of the possible combinations Simon can create of one shirt, one pair of pants, and one pair of shoes?

○A.
N, R, W
K, G
B, S

○B.
N, K, B
N, K, S
N, G, B
N, G, S
R, K, B
R, K, S
R, G, B
R, G, S
W, K, B
W, K, S
W, G, B
W, G, S

○C.
N, K, B
N, G, S
R, K, B
R, G, S
W, K, B
W, G, S

○D.
N, K, B
N, K, S
N, R, B
N, R, S
R, K, B
R, K, S
R, W, B
R, W, S
W, K, B
W, K, S
W, N, B
W, N, S

2. This sample space shows all the possible combinations of one type of main dish and one type of drink from which Roberto can choose.

According to the sample space, what is the probability Roberto will select eggs and juice?

Cereal, Milk
Cereal, Juice
Eggs, Milk
Eggs, Juice
Pancakes, Milk
Pancakes, Juice

○A. $\frac{2}{4}$ ○B. $\frac{2}{6}$ ○C. $\frac{1}{5}$ ○D. $\frac{1}{6}$

3. The lunch menu at Stonegate Elementary School was posted on the cafeteria bulletin board. Lunch includes a main dish, a side dish, and a fruit.

How many possible outcomes of one main dish, one side dish, and one fruit are there?

Lunch Menu

Main Dish	Side Dish	Fruit
Pizza	Salad	Orange
Sub	Corn	Pineapple
	Carrots	Applesauce

○A. 6 ○B. 8 ○C. 9 ○D. 18

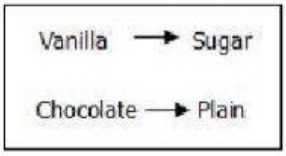
4. Christy wants to order an ice cream cone for dessert.

Which diagram shows all possible combinations Christy has if she picks 1 ice cream cone and 1 flavor of ice cream from the chart?

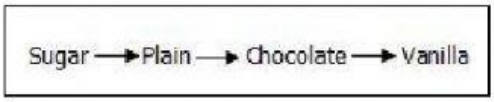
Ice Cream Choices

Ice Cream Flavors	Type of Cone
Vanilla	Plain
Chocolate	Sugar

OA.

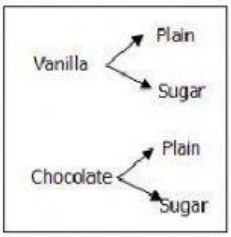


OB.



OC.

OD.



5. The table shows all of the options for one appetizer, one main dish and one dessert that is on special at a restaurant.

Appetizer	Main Dish	Dessert
Salad	Chicken Wings	Ice Cream
Potato Skins	Hamburger	Apple Pie
	Steak	

How many different combinations of one appetizer, one main dish, and one dessert are possible?

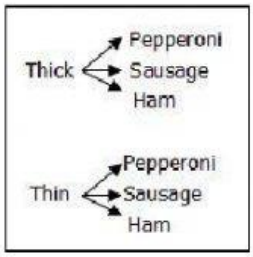
OA. 7 OB. 10 OC. 12 OD. 24

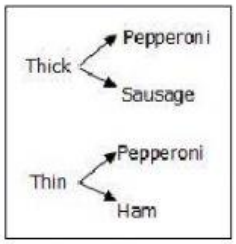
6. Louis works at a local restaurant. The uniform he wears to work consists of a red, blue or white shirt and black, blue, or khaki shorts. What is the probability that Louis will wear blue shorts to work?

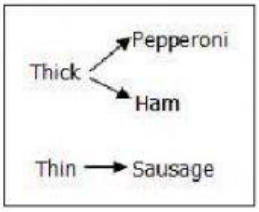
7. Mark is ordering pizza for the Pizza Shop.

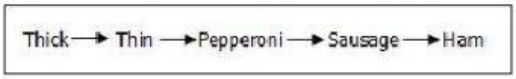
Pizza Choices	
Types of Crust	**Topping**
Thin Thick	Pepperoni Sausage Ham

Which tree diagram shows all possible combinations Mark has if he picks one type of crust and one topping from the chart?

OA.


OB.


OC.


OD.


8. The sample space shows all of the possible combinations of one type of drink and one type of snack that Jody can choose.

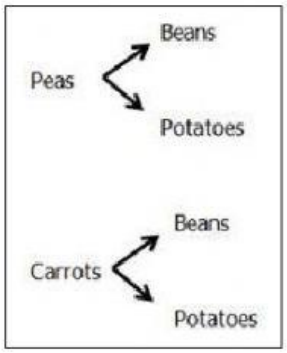
Juice, Apple
Juice, Banana
Juice, Cheese
Juice, Crackers
Milk, Apple
Milk, Banana
Milk, Cheese
Milk, Crackers

According to the sample space, what is the probability that the combination Jody chooses contains crackers?

OA. $\frac{2}{8}$ OB. $\frac{2}{4}$ OC. $\frac{1}{8}$ OD. $\frac{4}{4}$

9. Maria wants to serve 2 vegetables with dinner. Using the tree diagram, create a list of all possible combinations of 2 vegetables that Maria could pick.

Sample Space:



10. Brad has 2 bags with blocks that are all the same shape and size. There are 5 blocks in Bag A and 2 blocks in Bag B as shown.

Brad will randomly select one block from each bag. Which list shows all of the possible combinations of one block from each bag?

Blocks in Bags	
Bag A	**Bag B**
Blue Green Orage Red Yellow	Purple White

OA.
Blue, Purple
Green, White
Orange, Purple
Red, White
Yellow, Purple

OB.
Blue, Purple
Blue, White
Green, Purple
Gree, White
Orange, Purple
Red, White
Yellow, Purple

OC.
Blue, Purple
Blue, White
Green, Purple
Green, White
Orange, Purple
Orange, White
Red, Purple
Red, White
Yellow, Purple
Yellow, White

OD.
Blue, Purple
Blue, Blue
Green, White
Green, Green
Orange, Purple
Orange, Orange
Red, White
Red, Red
Yellow, Purple
Yellow, Yellow

11. Fred had the following options to order from at lunch.

How would you use the Fundamental Counting Principle to solve for the amount of possible combinations?

Main Dish	Drink	Dessert
Hamburger	Water	Ice Cream
Hot Dog	Soda	Cake
Pizza	Juice	

○A. 3 + 3 + 2 ○B. 3 - 3 - 2 ○C. 3 x 3 x 2 ○D. 3 ÷ 3 ÷ 2