

TEST NAME: Probability and Statistics Review #1
TEST ID: 3071086
GRADE: 07 - Seventh Grade
SUBJECT: Mathematics
TEST CATEGORY: School Assessment

04/29/19, Probability and Statistics Review #1

Student: _____

Class: _____

Date: _____

1. The table below shows the monthly cell phone bills of Amanda and John for the year 2012.

John's Bill (in dollars)	Amanda's Bill (in dollars)
67	60
62	48
58	61
60	37
58	56
62	64
63	80
58	28
60	42
62	75
66	67
67	34

Which statement is **correct**?

- A. John's bills have a greater range and median than Amanda's bills.
- B. Amanda's bills have a greater range and median than John's bills.
- C. John's bills have a greater median but a smaller range than Amanda's bills.
- D. Amanda's bills have a greater median but a smaller range than John's bills.

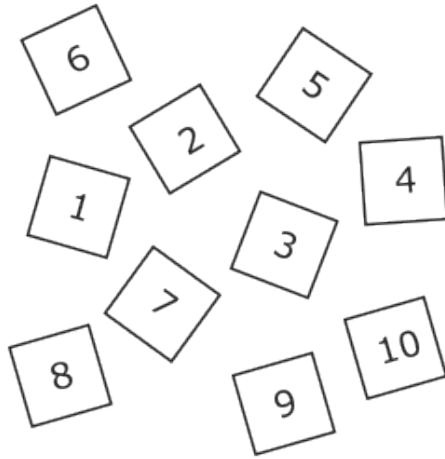
2. **Latoya has 60 CDs in her collection.**

- **40 are Pop**
- **12 are Country**
- **6 are Rock**
- **2 are Jazz**

If she randomly selects a CD from her collection, what is the probability that she will NOT select a Country CD?

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

3. Maria has a set of cards numbered 1 through 10.



If Maria picks a card without looking, what is the probability she will choose a number less than 5?

- A. $\frac{1}{2}$
- B. $\frac{2}{5}$
- C. $\frac{1}{5}$
- D. $\frac{1}{10}$
4. Lorenzo will flip a coin ten times. What is the probability Lorenzo's 9th flip will land on a head?
- A. $\frac{4}{5}$
- B. $\frac{1}{2}$
- C. $\frac{1}{3}$
- D. $\frac{1}{5}$

5. A game board has 36 spaces for moving around the board. Three of the spaces are marked 'Skip a Turn.' What is the probability a player will land on a 'Skip a Turn' space?

A. $\frac{1}{36}$

B. $\frac{1}{12}$

C. $\frac{1}{4}$

D. $\frac{36}{3}$

6. A stack of 100 cards is numbered from 1 to 100 and thoroughly mixed. What is the probability of selecting a card that is a multiple of 5?

A. $\frac{1}{2}$

B. $\frac{1}{5}$

C. $\frac{1}{10}$

D. $\frac{1}{20}$

7. A store is giving away gift cards to its customers. The store has ten \$25 gift cards, twenty \$15 gift cards, and fifty \$5 gift cards in separate envelopes. The envelopes are in a box and customers randomly select one envelope. What is the probability a customer will select a \$25 gift card?

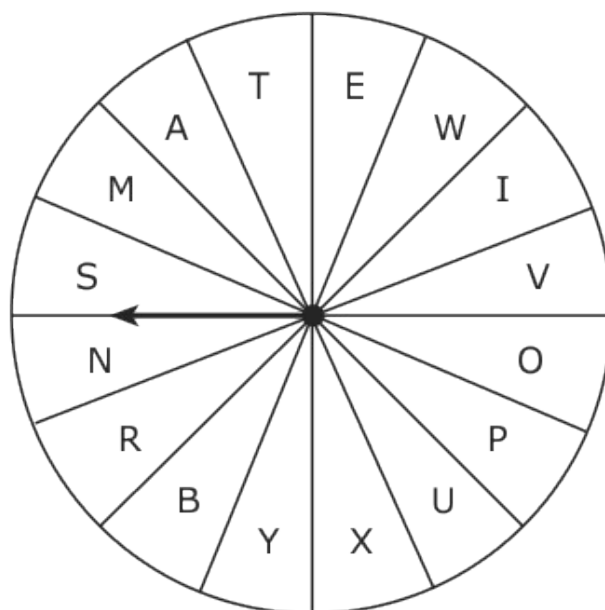
A. $\frac{1}{8}$

B. $\frac{1}{6}$

C. $\frac{1}{4}$

D. $\frac{1}{2}$

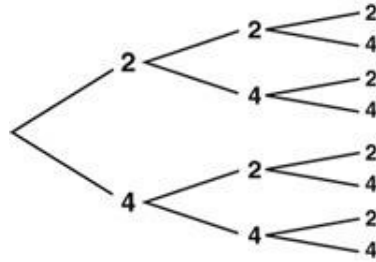
8. Carmen will spin the spinner below.



What is the probability that the spinner will land on a letter from the word **EXTRAORDINARY**?

- A. $\frac{8}{16}$
- B. $\frac{9}{16}$
- C. $\frac{5}{8}$
- D. $\frac{3}{4}$

9. A spinner has two sections of equal size that are numbered 2 and 4. The spinner will be spun three times.



What is the probability that the sum of the three spins is 10?

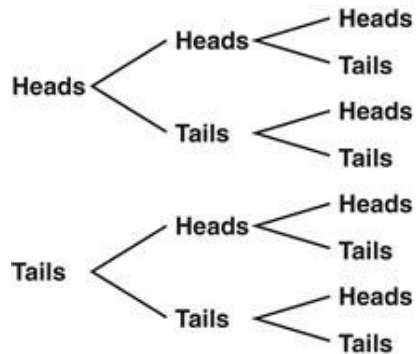
- A. $\frac{1}{8}$
- B. $\frac{2}{8}$
- C. $\frac{3}{8}$
- D. $\frac{5}{8}$
10. There are 5 brown horses and 4 tan horses in a barn. Sonia will randomly select two horses to ride with her friend. What is the probability that the first horse selected is tan and the second horse selected is brown?
- A. $\frac{5}{18}$
- B. $\frac{20}{81}$
- C. $\frac{2}{9}$
- D. $\frac{1}{20}$
11. A stack of playing cards contains 4 jacks, 5 queens, 3 kings, and 3 aces. Two cards will be randomly selected from the stack. What is the probability that a queen is chosen and replaced, and then a queen is chosen again?
- A. $\frac{16}{225}$
- B. $\frac{2}{21}$
- C. $\frac{1}{9}$
- D. $\frac{4}{9}$

12. Mr. Foley wants to randomly select 3 students for a committee. He used 3 coins to conduct a simulation to predict the probability that the committee will have at least 2 girls. The results of 16 trials of the simulation are shown below. Let H represent a girl and T represent a boy.

TTH	HTH	THH	HHH
HTT	THT	THT	HHT
HHT	THH	TTT	HTT
HHH	HTH	TTH	HHT

Based on the results of the simulation, what is the probability that the committee Mr. Foley selects will have at LEAST 2 girls?

- A. $\frac{9}{16}$
- B. $\frac{8}{16}$
- C. $\frac{7}{16}$
- D. $\frac{6}{16}$
13. The tree diagram below illustrates the possible outcomes of three tosses of a balanced coin.



What is the probability that “heads” will come up exactly two out of three times?

- A. $\frac{1}{8}$
- B. $\frac{1}{4}$
- C. $\frac{3}{8}$
- D. $\frac{1}{2}$

14. Jeremy will roll a number cube, numbered 1–6, twice. What is the probability of rolling an even number, then the number 3?

A. $\frac{1}{12}$

B. $\frac{1}{6}$

C. $\frac{1}{4}$

D. $\frac{2}{3}$

15. Daniel has five tiles, numbered 1 to 5, in a box.

- He randomly pulls out a tile and records the number.
- He places the tile back into the box.
- He then pulls out another tile and records the number.

What is the probability the sum of the numbers on the two tiles is 8?

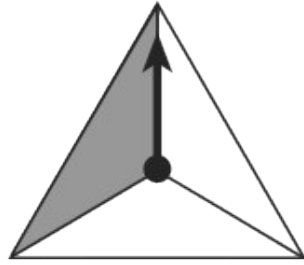
A. $\frac{1}{25}$

B. $\frac{3}{25}$

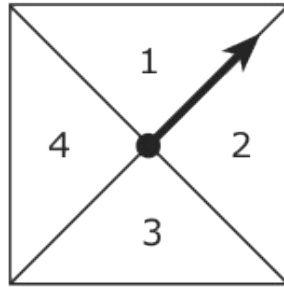
C. $\frac{1}{5}$

D. $\frac{3}{5}$

16. What is the probability of landing in an unshaded region on Spinner 1 and on the number 4 on Spinner 2?



Spinner 1



Spinner 2

- A. $\frac{1}{12}$
- B. $\frac{1}{7}$
- C. $\frac{1}{6}$
- D. $\frac{1}{4}$
17. David will toss one coin three times. What is the probability that the coin will land on heads only one time?
- A. $\frac{1}{8}$
- B. $\frac{1}{3}$
- C. $\frac{3}{8}$
- D. $\frac{1}{2}$

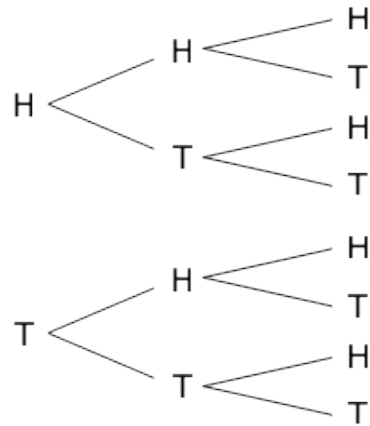
18. William will toss a coin and roll a number cube with sides labeled 1 to 6. How many outcomes are possible?
- A. 2
 - B. 6
 - C. 12
 - D. 24
19. At a school, students may choose one entrée, one vegetable, and one dessert for lunch. The choices are listed in the table below.

Entrée	Vegetable	Dessert
baked chicken	corn	chocolate cake
spaghetti	broccoli	apple pie
tacos	green beans	brownie
	salad	

How many different lunch combinations are available?

- A. 12
 - B. 36
 - C. 72
 - D. 144
20. Moesha has 3 dresses, 2 hats, and 5 pairs of shoes. She will choose an outfit that has one dress, one hat, and one pair of shoes. How many different outfits are possible?
- A. 3
 - B. 10
 - C. 15
 - D. 30

21. Ben will toss a penny, a nickel, and a dime. The tree diagram shows the possible outcomes.



How many different outcomes are possible?

- A. 4
B. 8
C. 12
D. 14
22. Jerry went to a restaurant for breakfast.
- He wants to eat either pancakes or waffles.
 - He can then choose a topping: syrup, strawberries, or blueberries.
 - Jerry's choices for a drink include coffee, orange juice, or apple juice.
- If he chooses one topping and one drink, how many different choices for breakfast does Jerry have?

- A. 6
B. 8
C. 12
D. 18

23. At a middle school, there are five starting basketball players for the team. The coach wants to select two players to be team captains. In how many different ways can he choose two captains from the five starting players?

- A. 1
- B. 2
- C. 5
- D. 10

24. Alan is decorating for a party. He wants one color of streamer, one type of flower, and one color of tablecloth.

- The streamers can be red, blue, or yellow.
- The flowers can be tulips, daisies, or roses.
- The color of the tablecloth can be plaid, striped, or solid.

How many possible combinations are there?

- A. 3
- B. 9
- C. 12
- D. 27