1. A 5-color spinner is used in an experiment, and the frequency of landing on each different color is recorded.

Red	Orange	Yellow	Green	Blue
14	8	11	5	12

What is the experimental probability of spinning a red or a blue?
- A. 0.24
- B. 0.28
- C. 0.52
- D. 1

2. A 5-color spinner is used in an experiment, and the frequency of landing on each different color is recorded.

Red	Orange	Yellow	Green	Blue
14	8	11	5	12

Based on the experimental results, how many spins would you expect to land on orange *or* blue in a new experiment with 75 trials?
- A. 12
- B. 16
- C. 18
- D. 30

3. A 5-color spinner is used in an experiment, and the frequency of landing on each different color is recorded.

| Red	Orange	Yellow	Green	Blue
17	8	5	15	10

Based on the experimental results, how many spins would you expect to land on green in a new experiment with 77 trials?
- A. 19
- B. 21
- C. 22
- D. 23

4. Henry received the following five scores on his math quizzes: 98, 89, 84, 74, and 95. What is the relationship between Henry's mean and median quiz score?

- A. The mean is one point lower than the median.
- B. The mean is four points lower than the median.
- C. The mean is one point higher than the median.
- D. The mean is four points higher than the median.

5. Look at the spinner. What is the probability of spinning an even number?
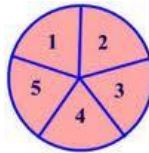
- A. Certain
- B. Impossible
- C. Equally likely
- D. Less likely

6. Laura has three beads – blue, red, and yellow- that she plans to string on a bracelet. How many different ways could Laura order the beads.?
- A. 3
- B. 6
- C. 9
- D. 27

7. A jar contains 12 green tokens, 6 red tokens, and 2 black tokens. You select a token without looking and then put it back. If you were to do this 10 times, what is the best prediction possible for the number of times you would pick a red token?
- A. 2
- B. 3
- C. 6
- D. 12

8. Yasmine tossed a coin 20 times. It lands on heads 14 times and tails on 6 times. What is the relative frequency of landing on tails?
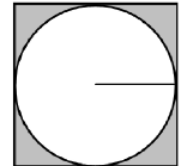- A. 6%
- B. 14%
- C. 30%
- D. 70%

9. Stacey throws a dart at the board. What is the probability it lands in the circle?
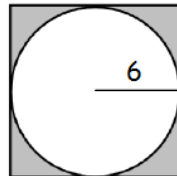
- A. 3%
- B. 31%
- C. 78.5%
- D. 90.2%

10. Kora throws a dart at the board. What is the probability it does not land in the circle?

- A. 21.5%
- B. 25.5%
- C. 78.5%
- D. 31.8%

20 inches

11. There are 5 family members that each want to play war against each other one evening. How many total games must be played in order for all of the family members to play each other at least once?
- A. 5
- B. 7
- C. 9
- D. 10

12. A teacher uses the spinner for a game.

If you spin a number that is more than a 5 you get a point. What statement is true about the game?
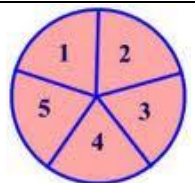
- A. The chance of getting a point is highly likely.
- B. The chance of getting a point is impossible.
- C. The chance of getting a point is less likely.
- D. The chance of getting a point is certain.

13. Pedro went to a deli for lunch. For the lunch special, he could purchase one sandwich, one drink, and one dessert. How many combinations could Pedro possibly select?

Sandwich	Drink	Dessert
Ham	Coke	Cake
Turkey	Water	Pie
Roast Beef	Sweet Tea	

    A.   18 combinations
    B. 16 combinations
    C. 15 combinations
    D. 12 combinations

14. The local cupcake shop allows customers to create their own cupcake creations by selecting one cake flavor and one icing flavor. The cake shop offers vanilla, chocolate, strawberry, cookie dough, and lemon cake flavors. They offer vanilla, chocolate, peanut butter, butterscotch, cream cheese, and strawberry icings. How many possible cupcake/icing combinations do customers have?
    A. 5
    B. 6
    C. 11
    D. 30

15. At Hot Dog City, Jacob can pick between four different kinds of hot dogs and three different sides. How many combinations can he make if he only orders one hot dog and one side for a meal?

Hot Dogs	Sides
Chicago Dog	French Fries
Philly Dog	Cole Slaw
Texas Dog	Baked Beans
Cali Dog	

    A. 4
    B. 8
    C. 12
    D. 16

16. These four cards are placed into a bag and two are drawn out by Danny.

| 4 | 7 | 9 | 6 |

What is the probability of pulling two cards out of the bag that have a sum more than 11?
    A. –

    B. –

    C. –

    D. 1

17. There are three flavors of lollipops in the candy bag: watermelon, apple, and cherry. If the probability of getting a watermelon was $\frac{1}{4}$ and the probability of getting an apple was –, what is the probability of getting a cherry?

    A. 0

    B. —

    C. -

    D. —

18. Given the data set below, what is the mean absolute deviation?

58	72
88	66
40	80
60	48

    A.   64
    B. 12.5
    C. 8.5
    D. 8

19. Harmony was selecting her outfit for the next day. The table below represents the choices she has for the color of shirt, pants, and shoes.

Shirt	Pants	Shoes
Pink	Jeans	Tennis
Purple	Corduroy	Boot
Blue	Khaki	Flip Flops
Green		

Which expression could Harmony use to find the total number of different combinations of outfits that she can wear?

    A. 4 + 3 + 3
    B. 4 + 3 + 3 × 3
    C. 4 × 3 × 3
    D. (4 + 3 + 3) × 3

20. Webb University analyzed the number of 2-point shots that a high-school senior (senior A) made during the last basketball season. They created the box-and-whisker plot below.

Data Sheet 1
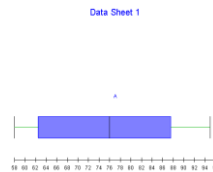
The university was also looking at a different high-school seniors (senior B) 2-point shots and determined his interquartile range was 22.

Which statement about the two high-school seniors must be true?
    A.   Senior A must have a larger box.
    B.   Senior B must have a larger box.
    C.   Senior A must have a higher median.
    D.   Senior B must have a greater range.