1) A number cube is rolled in an experiment, and the frequency of each different roll is recorded.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Roll** | 1 | 2 | 3 | 4 | 5 | 6 |
| **Frequency** | 10 | 8 | 12 | 9 | 14 | 7 |

Based on the experimental results, how many times would you expect to roll a 3 in 100 trials?

2) A number cube is rolled in an experiment, and the frequency of each different roll is recorded.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Roll** | 1 | 2 | 3 | 4 | 5 | 6 |
| **Frequency** | 10 | 8 | 12 | 9 | 14 | 7 |

What is the experimental probability of getting a 4 or a 6?

3) You have a spinner for a game.

3

2

4

1

What are the chances

of spinning an

**even** **number?**

A. impossible B. equally likely

C. highly likely D. less likely

4) The class uses a spinner for a game.

3

2

4

1

If you spin a number greater

than 4, 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.

5) Which best describes the probability of the arrow on this spinner landing on **red or blue** instead of **purple or green**?

Purple

Purple

Green

Green

Red

Blue

A. certain

B. impossible

C. more likely

D. less likely

6) There are three flavors of Jolly Ranchers -

rev 5/2

green apple, watermelon, and raspberry.

If the probability of getting a green apple is 1/5,

and of getting a watermelon is 3/10, what is the probability of getting a raspberry?

7) A spinner has four unequal parts. Ali spun the spinner 20 times. The spinner landed on red 3 times, blue 4 times, yellow 2 times and green 11 times. Using this data, what is the *most likely* outcome on the next spin?

A. red B. blue C. green D. yellow

8) Julian has a bag of mixed candies. He has 4 green, 5 yellow, and 7 red. What is the probability that Antonio will pick a yellow candy?

A. impossible B. equally likely

C. highly likely D. less likely

9) Restaurants often slip takeout menus under the Millers’ door. They counted how many menus there were from each type of restaurant.

|  |  |
| --- | --- |
| Italian | 2 |
| Thai | 1 |
| Korean | 5 |
| Chinese | 6 |
| Indian | 4 |

Considering this data, how many of the next 15 menus slipped under the Millers’ door

should you expect to be from Chinese restaurants?

A. 4 B. 5 C. 6 D. 15

10) A bag contains 7 blue marbles, 7 green marbles, and 2 yellow marbles. Sydnie selects a marble without looking and then puts it back. If she does this 8 times, what is the best prediction possible for the number of times Sydnie will pick a yellow marble?

A. 1 B. 2 C. 5 D. 16

11) Mathis tosses a coin 50 times, and it lands on heads 21 times and tails 29 times. What is the experimental probability of landing on heads?

A. 21% B. 42% C. 50% D. 58%

12) The spinner is used to play the game Twister.



Beanbag Toss

6 feet

4 feet

**25** points

**100**

**50**

If there are a total of 16 equal sections, with four of each shade of gray, what is the probability of the spinner landing on the lightest gray?

A. 25% B. 50% C. 75% D. 80%

13) If Kayana chooses a point in the square, what is the probability that it is *not* in the circle?

3

A. 28.26% B. 21.5%

C. 25% D. 7.74%

14) Connor is tossing a fair coin. He tosses the coin twenty-four times, and it lands on heads eighteen times. If Connor tossed the coin a twenty-fifth time, what is the probability that it will land on tails?

A. B. C. D.

15) Walter is at a school picnic with his family and wants to win the prize playing Beanbag Toss.

If the hole that is worth 100 points has a diameter of 1 foot, what is the approximate probability that Walter will hit the 100-point hole?

A. 97%

B. 1%

C. 0.03%

D. 3%

16) If Jordan can only wear one pair of socks and shoes at a time, how many different combinations can he create?

|  |  |
| --- | --- |
| **Socks** | **Shoes** |
| Black | Blue |
| White | Black |
| Gray | Red |

17) At the Ice cream shop, Shawn can buy 1 scoop of ice cream and 1 topping. How many combinations does Shawn have to choose from?

|  |  |
| --- | --- |
| **Ice Cream** | **Toppings** |
| Chocolate | Fudge sauce |
| Strawberry | Caramel sauce |
| Vanilla | Sprinkles |
| Rocky Road |  |

18) Damian is making pizzas for a party. How many different combinations of crust, meat, and cheese can he make from the ingredients in the table?

|  |  |  |
| --- | --- | --- |
| **Crust** | **Meat** | **Cheese** |
| Pan | Sausage | Mozzarella |
| Thin | Pepperoni | Parmesan |
|  | Hamburger | Romano |
|  |  | Cheddar |

19) These four cards are placed into a bag and Karla draws out two. What is the probability of pulling two cards out of the bag that have a sum less than 10?

2

3

5

7

1. When flipping a coin 3 times, what is the probability of getting all heads or tails?
2. Suppose you spin the spinner 3 times. What is the probability of spinning red, blue, blue (in this order)?

Blue Red

Red Yellow

1. Mr. Greene invented a two person game in which players take turns rolling two number cubes. If the product is greater 20, then player A gets a point. If the product is less than or equal to 20, then player B gets a point. Is Mr. Greene’s game fair? Explain.