Experimental Probability Module 12 Practice Quiz

**Work Space**

1. Tony rolls a number cube that has sides labeled 1 to 6 and then flips a coin. What is the probability that he rolls a 4 number and flips tails?

2. There are 4 kings in a standard deck of 52 playing cards. If Jenny selects a card at random, what is the probability that it will be a king?

3. The experimental probability that Dylan will catch a fly ball is equal to 5/8. About what percent of the time will Dylan catch a fly ball?

4. Jack’s Bike shop sells 3 types of helmets, small, medium, and large. Each helmet is offered in green, orange, or white. If a helmet is selected at random, how many different possibilities are in the sample space?

5. Rachel saw 16 tricycles, 7 scooters, and 24 bikes drive by her house in 1 hour. What is the experimental probability that the next mode of transportation that drives by her house will **not** be a bike?

6. The probability of an event is 0.23.

Mandy said this event is likely to occur, but

her friend Kelly said it is least likely to

occur. Who is correct? Explain.

7. There are 50 colored cubes inside a bag. 10 cubes are white, 22 are blue, 18 are green. One is drawn at random. Which color is most likely to be chosen? Compare each probability.

8. The experimental probability that Brooke will hit the ball when she is at bat is 3/8.   
If she is at bat 72 times in a season, how many times can Brooke expect to hit the ball?

9. Tyler has a box of colored pencils. 85 are orange, 29 are black, 42 are blue, and   
22 are yellow. If Tyler selects a crayon at random, which color crayon would he be **least** likely to select? Compare each probability.

10. Maura flipped a coin 241 times. She flipped heads 123 times and tails 118 times. What is the experimental probability that the next flip will be heads?

**Work Space**

11. A number cube has sides labeled 1 to 6. Dominic rolls the number cube 36 times. He rolls a 2 fifteen times. What is the experimental probability that his next roll will **not** be a 2?

12. Alex has 24 country tunes, 46 disco tunes and 52 rap tunes on his playlist. If Alex’s music player randomly selects a song from the playlist, what is the probability that the tune will **not** be a rap tune?

13. **Carl’s** Survey Results

|  |  |
| --- | --- |
| Drink | Number of Students |
| Coke | 23 |
| Pepsi | 35 |
| Mountain Dew | 16 |
| 7-UP | 15 |

Carl recorded the favorite drinks of students in his class. Based on the results of his survey, what is the experimental probability the next student he surveys will respond “Coke” or “Mountain Dew”?

14. The experimental probability of sunny days in a certain town is 40 percent. In the next 180 days, how many days can one expect it to be sunny?

**Work Space**

15. The experimental probability that Matt will

win a game of chance is 3/5.  The

experimental probability that Joseph will

win the same game is 7/10.  If Matt and

Joseph each play 150 games, how many

more games can Joseph expect to win?

16. Sandy’s Candy Picks

|  |  |
| --- | --- |
| Starburst | Frequency |
| Orange | 36 |
| Red | 20 |
| Pink | 18 |
| Yellow | 44 |

Sandy conducted an experiment in which she placed orange, red, pink, and yellow Starburst candies in a hat and drew them out without looking. The number of times Sandy drew each color is shown in the table above. What is the experimental probability that the Starburst candy Sandy draws will be pink?

17. The experimental probability that John will make a basket is 0.3. The experimental probability that Quinn will make a basket is 0.7. If John and Quinn each shoot 80 baskets, about how many more baskets will Quinn be expected to make?

18. The probability that Grace wins a certain game of chance is 1/8. If Grace plays the game 250 times, how many times can she expect to win the game?

**Work Space**