Date: $\qquad$ Block: $\qquad$
Summative 8 Review
Happy Friday!!

1. Label the Probability Line correctly with its vocabulary terms and numerical values.

Certain Unlikely Impossible Likely Equally Likely
50\% $75 \% \quad 25 \%$
$0 \%$
$100 \%$
$1 / 2$
$3 / 4 \quad 10 / 10$
$0 / 5$
$1 / 4$

2. Malby had spent all day at the 5-8 year old carnival competing in races and games so he could win a prize. However, all day long those tough little kids had been beating him at everything, and now is his last chance to win a prize. It was the potato sack race and he knew he could win this one easily. Once again, he was surprised by how quick those little kids can hop, but he was determined to win this race. He was near the finish when this adorable 7 year old girl with pig tails and big blue eyes hopped right in front of him and took the lead. Malby thought for a second and couldn't believe that this little shedevil was about to steal his prize, so he hopped right next her, gave her a slight bump that knocked her off balance, and crossed the finish line winning the race! This was the greatest moment in Malby's life and he couldn't believe his eyes when they brought out the bag of Blow Pops for him to choose from. There were 5 reds, 3 greens, 6 purples, and 8 blues. Create a list that shows the likeliness for each color to be picked by Malby. You need to express your answers as fractions, decimals, and percents.
3. If you spin a spinner with 5 equal sections labeled A-E 75 times, about how many times would you expect to land on A? Show your work.
4. If you roll a number cube 200 times, about how many times would you land on a 1 ? Show your work.
5. Mr. Evans rolled a number cube numbered 1-6 twenty times. Thirteen out of the twenty times he rolled a 2 . If he rolled the number cube a twenty-first time, what is the probability that it will land on a 2? Justify your answer.
6. In a group of 24 girls and 22 boys, two children need to be chosen for team leaders.
a. What is the probability that Malby gets chosen?
b. What is the probability that a boy gets chosen?
7. A. If there is a bag that contains a lollipop, a candy bar, and a Starburst, what is the theoretical probability of choosing a candy bar?

Mrs. Hovis picked out of the bag 90 times and replaced the candy each time, and recorded her data in the table below.

| Candy Picked | Frequency |
| :---: | :---: |
| lollipop | 21 |
| candy bar | 57 |
| Starburst | 12 |

B. What was the experimental probability of picking a candy bar?
C. Compare the theoretical and experimental probabilities of picking a candy bar.
D. What could Mrs. Hovis do to get the experimental probability closer to the theoretical probability?
8. Draw a tree diagram to represent the combinations of outcomes when flipping a coin and spinning a spinner with 5 equal sections (red, yellow, orange, blue, green).
9. Use your tree diagram to create a list of all possible outcomes of flipping a coin and spinning a spinner with 5 equal sections.
10. Using your tree diagram from \#2, what is the $P$ (heads, yellow)?
11. You are choosing an outfit for a party and have a choice of 6 shirts, 4 pairs of pants, and 3 pairs of shoes. If you choose 1 shirt, 1 pair of pants, and 1 pair of shoes, how many different combinations of outfits are there?
12. You want to eat at the local pizza shop with your friends for lunch. You can order three sizes of pizza - small, medium and large. There are also 12 possible toppings. You also want to order an appetizer - there are 6 to choose from. Don't forget a drink - there are 5 sizes and 8 drink choices. Using the Counting Principle, how many possible combinations of lunches are there at the pizza shop?
13. Every morning, Malby walks to his car nervously because he gets attacked by blood thirsty squirrels 5 out of the 7 mornings. Which of the following could not be used to simulate this situation?
A. Use a spinner with 7 equal sized sections. Let 5 of the sections represent getting a attacked and 2 sections represent not getting attacked.
B. Draw a colored chip out of a bag that contains 70 chips. Fifty of the chips are marked with an $X$ to represent getting attacked and the other chips represent not getting attacked.
C. Place 5 blue marbles and 7 red marbles in a bag. The blue marbles represent getting attacked and the red marbles represent not getting attacked.
D. Place 42 cards face down. Let 30 of them be red which represents getting attacked, and the others will be black and represent not getting attacked.
14. The numbers below were randomly selected to represent 8 trials of a simulation.
$\begin{array}{llllllll}36038 & 17813 & 08004 & 78221 & 06032 & 80751 & 86228 & 80168\end{array}$
The numbers 0-5 represent the times that Malby was bitten by a lion after flicking it in the nose. The numbers 6-8 represent the times that Malby was not bitten by a lion after flicking it in the nose. Based on the simulated data, what is the probability that exactly 4 out of a group of 5 randomly selected flicks would lead to Malby getting bitten?

## Warm-Up: Summative 8 Review

1. If you spin the spinner 80 times, about how many times would you expect to land on orange?

2. Jaylynn spins the spinner above and then rolls a 6 -sided number cube. What is the probability she will spin purple and roll a 3 ?

March 9, 2020

* Complete Summative 8 Assessment
* Complete any formatives or formative retakes for Summative 8
* Work on assignments on Pearson Courses

ALL WORK SHOULD BE DONE INDEPENDENTLY. DO YOURBEST!!

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