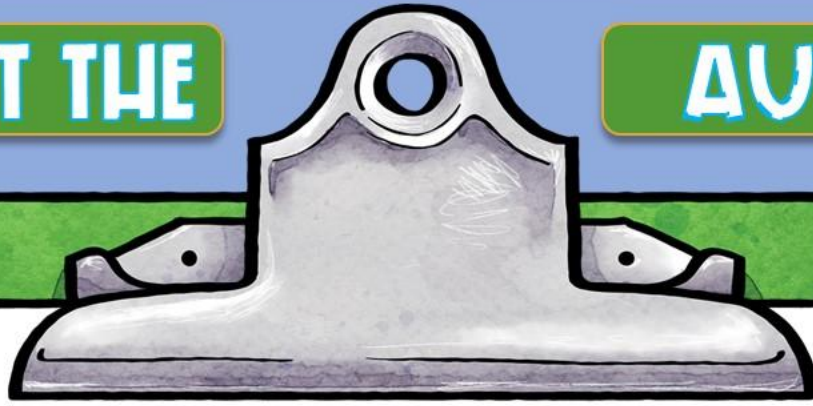


PROBABILITY PRACTICE



ABOUT THE

AUTHOR



Hello friends! My name is Brittany, and I wanted to introduce myself.

I taught 6th grade for seventeen (17) years in both an elementary and middle school environment. I also co-taught in 5th grade for one year as well. Although my first love is social studies, I also have a strong affinity for math, and enjoy ELA as well. When I teach, I love to use interactive notebooks or anything that allows students to get hands-on with their learning, dig into the material, and make it their own. I also enjoy getting to know my students outside of the classroom and participated as a softball coach, an NJHS and yearbook advisor, led juggling club, and more.

When not in school, I am an avid sports fan and a true tomboy. I will catch almost any sport, but I love my Green Bay Packers most of all. I also am a huge admirer of pets, and we currently have 8 in our house – ranging from dogs and cats to reptiles and hamsters. I enjoy photography, although I consider it a work in progress, & reading is also a hobby of mine. I've been married for over 25 years to my high school sweetheart, Jeff, and we have two grown children.

I hope you'll reach out and connect with me. I'd love to hear from you!

Brittany

PROBABILITY NOTES

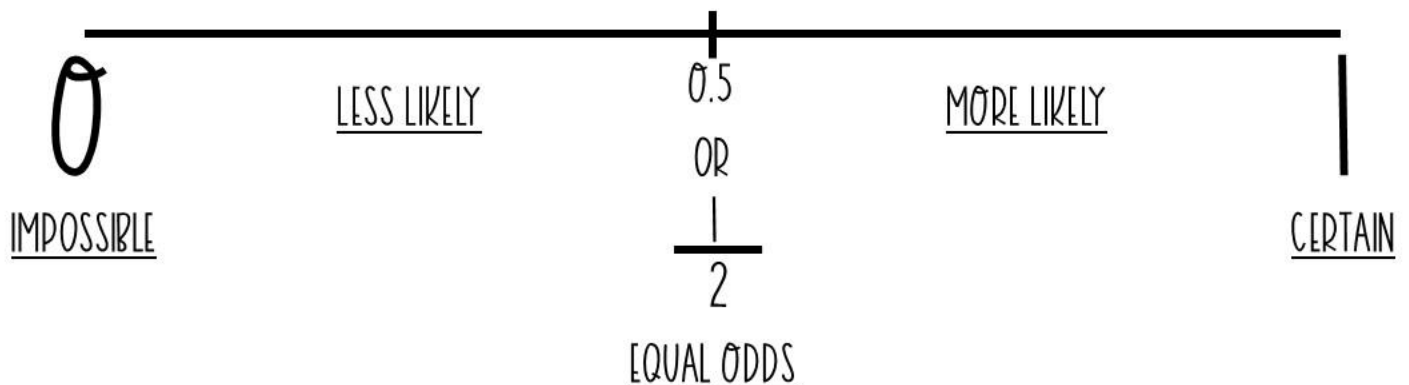
DEFINE:

PROBABILITY:

EVENT:

OUTCOME:

PROBABILITY SPECTRUM: (PROVIDE AN EXAMPLE FOR EACH AREA.)



PROBABILITY NOTES

UNDERSTAND THE OUTCOMES POSSIBLE:

COINS:

DICE:

CARDS:

SPINNERS:

MARBLES:

WORDS:

PROBABILITY PRACTICE

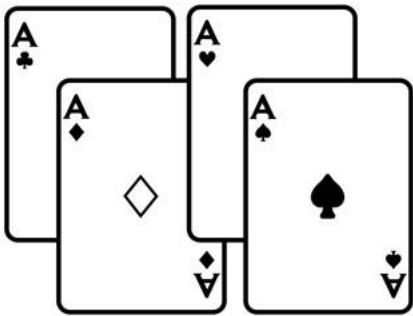
STATE THE PROBABILITY OF EACH EVENT FOUND BELOW:



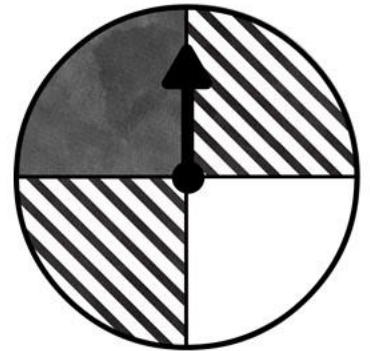
P(HEADS ON A COIN):



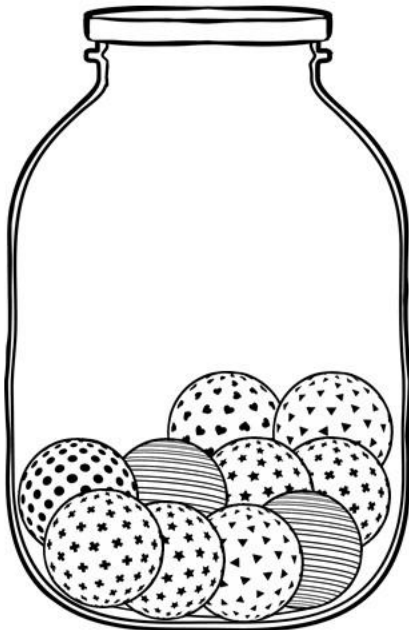
P(ROLLING # > 3 ON A DIE):



P(PICKING A RED ACE FROM A DECK):



P(SPINNING STRIPES):



P(NOT STRIPED MARBLE):

P('M' IN ANIMALS):

ANIMALS

PROBABILITY PRACTICE

STATE THE PROBABILITY OF EACH EVENT FOUND BELOW:

P(TAILS ON A COIN):

P(ROLLING # < 3 ON A DIE):

P(PICKING AN ACE OUT OF A DECK OF CARDS):

P(SPINNING GRAY):

P(STRIPED MARBLE):

P('A' IN ANIMALS):



PROBABILITY THINKING

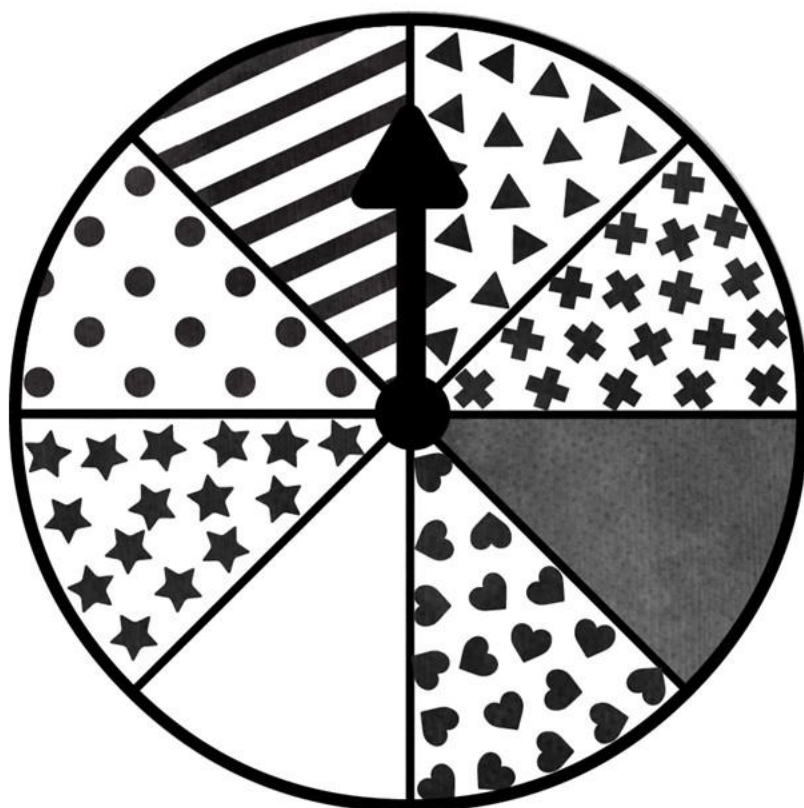
THINK ABOUT THE PROBLEM PRESENTED BELOW AND THEN ANSWER THE QUESTIONS:

TASHARA, DEREK, & TAYLOR ARE ABOUT TO PLAY A GAME WITH THIS SPINNER.

- TASHARA WINS WHEN IT LANDS ON A PATTERN, BUT NOT STRIPES.
- DEREK WINS WHEN IT LANDS ON STRIPES.
- TAYLOR WINS WHEN IT LANDS ON A SOLID COLOR (WHITE & GRAY).

IS THIS A FAIR GAME? WHY OR WHY NOT?

WHO WOULD YOU WANT TO BE
IN THIS GAME?



PROBABILITY NOTES

DEFINE:

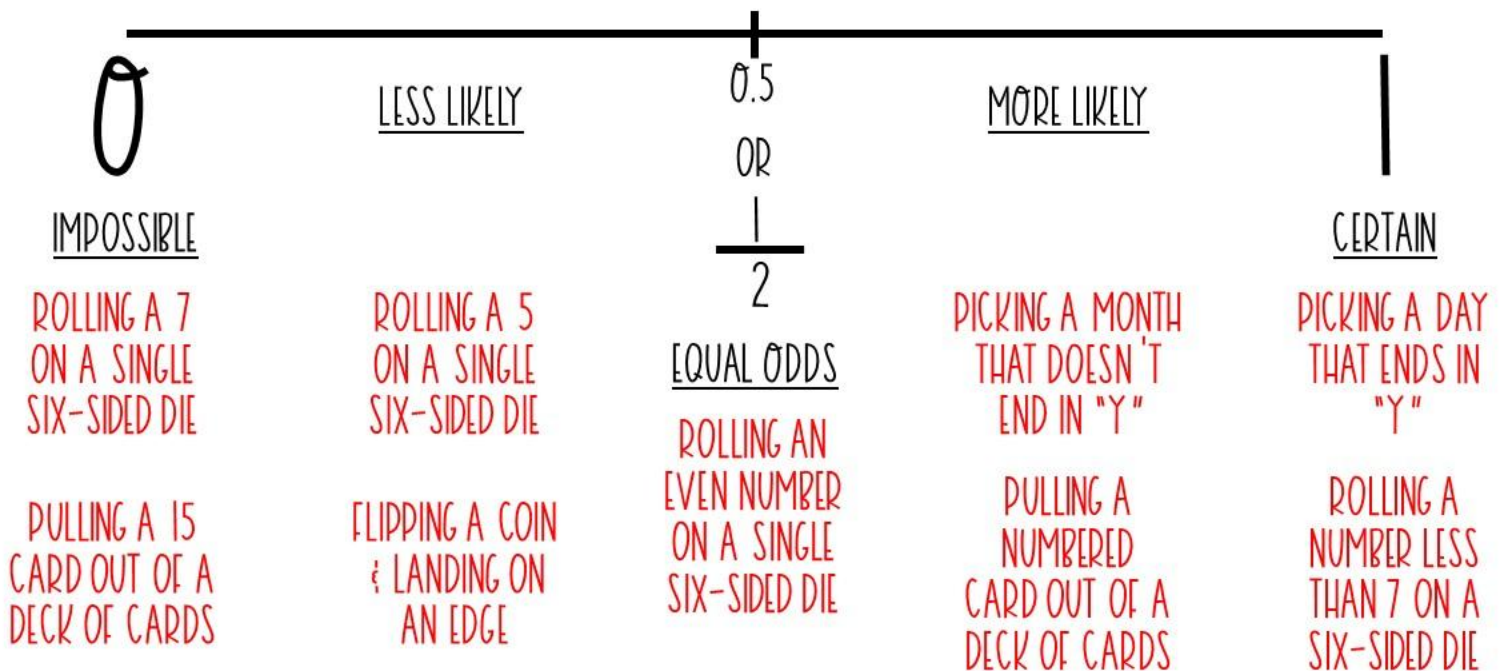
PROBABILITY: A MEASURE OF THE LIKELIHOOD THAT AN EVENT WILL OCCUR.

$$P(\text{EVENT}) = \frac{\# \text{ DESIRED OUTCOMES}}{\# \text{ POSSIBLE OUTCOMES}}$$

EVENT: AN OUTCOME OR GROUP OF OUTCOMES.

OUTCOME: A POSSIBLE RESULT.

PROBABILITY SPECTRUM: (PROVIDE AN EXAMPLE FOR EACH AREA.) ANSWERS WILL VARY.



PROBABILITY NOTES

UNDERSTAND THE OUTCOMES POSSIBLE:

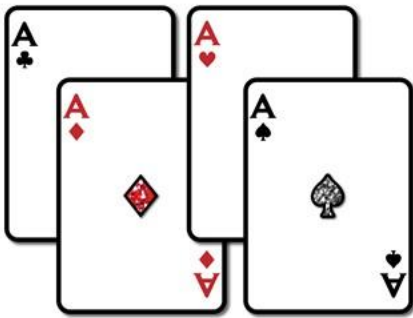
- COINS: A COIN HAS 2 SIDES — HEADS & TAILS.
(IT CAN ALSO LAND ON AN EDGE BUT THAT IS EXTREMELY UNLIKELY & ONLY OCCURS ABOUT ONCE OUT OF EVERY 1000 FLIPS.)
POSSIBLE OUTCOMES = 2
- DICE: A STANDARD DIE HAS 6 SIDES.
POSSIBLE OUTCOMES = 6
- CARDS: A STANDARD DECK OF CARDS HAS 52 CARDS.
(THERE ARE 4 SUITS — HEARTS, DIAMONDS, SPADES, & CLUBS, EACH CONSISTING OF 13 CARDS, ACE TO KING.)
POSSIBLE OUTCOMES = 52
- SPINNERS: SPINNERS DEPEND ON HOW MANY SECTIONS IT IS DIVIDED INTO. # POSSIBLE OUTCOMES = VARIES
- MARBLES: MARBLES DEPEND ON HOW MANY ARE IN THE JAR OR BAG. # POSSIBLE OUTCOMES = VARIES
- WORDS: WORDS DEPEND ON HOW MANY LETTERS IT HAS. # POSSIBLE OUTCOMES = VARIES

PROBABILITY PRACTICE



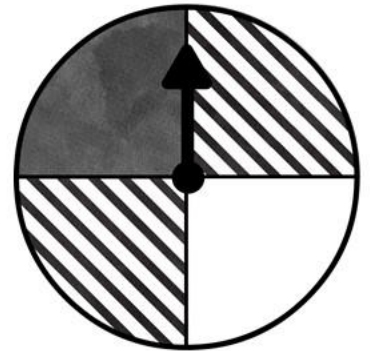
P(HEADS ON A COIN): $\frac{1}{2}$

P(ROLLING # > 3 ON A DIE): $\frac{3}{6} = \frac{1}{2}$



P(PICKING A RED ACE FROM A DECK): $\frac{2}{52} = \frac{1}{26}$

P(SPINNING STRIPES): $\frac{2}{4} = \frac{1}{2}$



P(NOT STRIPED MARBLE): $\frac{8}{10} = \frac{4}{5}$

P('M' IN ANIMALS): $\frac{1}{7}$ **ANIMALS**

PROBABILITY PRACTICE

STATE THE PROBABILITY OF EACH EVENT FOUND BELOW:

P(TAILS ON A COIN): $\frac{1}{2}$

P(ROLLING # < 3 ON A DIE): $\frac{2}{6} = \frac{1}{3}$

P(PICKING AN ACE OUT OF A DECK OF CARDS): $\frac{4}{52} = \frac{1}{13}$

P(SPINNING GRAY): $\frac{1}{4}$

P(STRIPED MARBLE): $\frac{2}{10} = \frac{1}{5}$

P('A' IN ANIMALS): $\frac{2}{7}$



PROBABILITY THINKING

THINK ABOUT THE PROBLEM PRESENTED BELOW AND THEN ANSWER THE QUESTIONS:

TASHARA, DEREK, & TAYLOR ARE ABOUT TO PLAY A GAME WITH THIS SPINNER.

- TASHARA WINS WHEN IT LANDS ON A PATTERN, BUT NOT STRIPES.
- DEREK WINS WHEN IT LANDS ON STRIPES.
- TAYLOR WINS WHEN IT LANDS ON A SOLID COLOR (WHITE & GRAY).

IS THIS A FAIR GAME? WHY OR WHY NOT?

THIS IS NOT A FAIR GAME BECAUSE TASHARA WILL WIN WHEN THE SPINNER LANDS ON 5 OUT OF 8 SPACES, BUT DEREK ONLY HAS A 1 IN 8 CHANCE OF WINNING, AND TAYLOR WILL WIN 2 OUT OF 8 SPACES OR 1 OUT OF EVERY 4. TASHARA SHOULD EASILY WIN THIS GAME.

WHO WOULD YOU WANT TO BE IN THIS GAME?

ANSWERS WILL VARY, BUT MOST STUDENTS WILL SAY THEY WANT TO BE TASHARA BECAUSE THEN THEY HAVE A GREATER CHANCE OF WINNING.

