

NAME \_\_\_\_\_

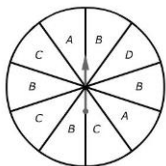
**PRACTICE**

- 1) A 6-sided cube with letters A, B, C, D, E and F is rolled. What is the theoretical probability of rolling a consonant?
- 2) What is the probability of not rolling a 7 on a number cube?
- 3) Marilyn selects a piece of candy at random from a jar that contains four peppermint, five cherry, three butterscotch, and two lemon candies. What is the probability that the candy she selects is *not* a peppermint candy?
- 4) The Tigers soccer team has won 4 games, lost 2 games, and tied 3 games. Based on this information, what is the probability the Tigers will lose their next game?
- 5) Gavin rolls a number cube 50 times. The number 3 is rolled 12 times.
  - a. What is the experimental probability of rolling a 3?
  - b. What is the theoretical probability of rolling a 3?

- 6) John performs an experiment by randomly selecting different-colored marbles from a jar. The results of his experiment are shown in the table below. Based on the data, what is the probability that the next marble John selects will be green red or yellow?

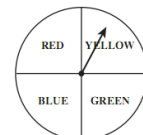
Marble Color	Frequency
Green	5
Blue	11
Red	8
Yellow	1

- 7) The spinner below is spun 850 times. About how many times can we expect to land on the letter A, B or C?



- 8) A certain team has a 52% chance of winning a game. If they play 108 more games, predict how many they will lose.

- 9) Determine the number of possible outcomes:



- a. Flip three coins and roll a die

- b. Spin a spinner and roll three dice

- 10) If a woman has ten different shirts, three different skirts, and five different pairs of shoes, how many different possible outfits consisting of a shirt, skirt, and shoes are possible?
- 11) A type of shirt comes in 3 styles, 8 colors, and 2 different materials. How many different types of shirts can be sold?
- 12) Mary orders from a lunch menu that has ten appetizers, four soups, ten entrees, and four desserts. How many different meals consisting of an appetizer, a soup, one entrée, and one dessert can Mary order?

**There are 3 blue marbles, 4 green marbles, and 1 red marble in a bag.**

- 13) Find  $P(\text{blue, green})$  if replaced.                      14.) Find  $P(\text{blue, green})$  if not replaced.
- 15.) Find  $P(\text{red, red})$  if replaced.                      16.) Find  $P(\text{red, red})$  if not replaced.
- 17.) Cassie rolls a fair number cube with 6 faces labeled 1 through 6. She rolls the number cube 300 times. Which result is **most** likely?
- A. Cassie will roll a 1 or a 2 about 50 times.                      B. Cassie will roll a 1 or a 2 exactly 50 times.
- C. Cassie will roll an even number about 150 times.                      D. Cassie will roll an even number exactly 150 times.

- 18.) A cereal company puts a colored ring in each box of cereal. There are 6 different ring colors. The colors of the rings in each of the 50 cereal boxes are shown in the table below.

**RING COLORS IN CEREAL BOXES**

Color	Number of Rings
Red	7
Blue	15
Green	8
Purple	10
Yellow	5
Orange	5

Based on the data, what is the probability that the next cereal box will contain a blue or a yellow ring?

- A.  $\frac{1}{6}$                       B.  $\frac{2}{5}$                       C.  $\frac{3}{5}$                       D.  $\frac{2}{3}$

19.) The school bus Evie rides is schedule to arrive at her stop at 8:20am each day. The table below shows the actual arrival times of the bus for several days that were randomly selected over the past few months.

**BUS ARRIVAL TIMES (a.m.)**

8:21	8:21	8:19	8:20	8:23
8:22	8:20	8:18	8:20	8:18
8:21	8:20	8:19	8:17	8:25
8:20	8:20	8:18	8:19	8:24

Based on these data, what is the probability that the bus will arrive at Evie’s stop before 8:20 a.m. tomorrow?

- A.  $\frac{3}{10}$                       B.  $\frac{1}{3}$                       C.  $\frac{7}{20}$                       D.  $\frac{13}{20}$

20.) Sara is playing a board game. The probability that Sara will score a point on her next turn is  $\frac{1}{3}$ . Which statement describes the probability that Sara will score a point on her next turn?

- A. likely                      B. certain                      C. unlikely                      D. impossible

21.) A storeowner made a list of the number of greeting cards sold last month. The store sold 167 thank-you cards, 285 birthday cards, and 56 blank cards. Based on these data, which number is closest to the probability that the next customer will buy a blank card?

- A. 0.11                      B. 0.33                      C. 0.56                      D. 0.89

22.) Leanne collects data throughout the basketball season and uses these data to determine the probabilities of different teams playing in the league championship game. The probabilities for her four favorite teams playing in the championship game are shown to the right.

- Tigers:  $P = \frac{2}{3}$
- Redbirds:  $P = \frac{4}{5}$
- Bulldogs:  $P = \frac{3}{8}$
- Titans:  $P = \frac{1}{2}$

Which of these teams is **least likely** to play in the championship game?

- A. Tigers                      B. Redbirds                      C. Bulldogs                      D. Titans