

NAME: _____
PROBABILITY TEST

DATE: _____
PERIOD: _____

Read each question carefully. Write the letter on the answer sheet.

1. You roll a standard number cube once. Which of the following gives all of the outcomes of the sample space for this experiment?
- A) 1, 2, 3
 - B) A, B, C, D
 - C) 1, 2, 3, 4, 5, 6
 - D) 2, 4, 6, 8, 10

A hat contains 5 red balls, 8 green balls, and 9 yellow balls. Tina chooses one ball at random from the hat.

2. What is the probability that Tina chooses a green ball?
- A) $\frac{1}{11}$
 - B) $\frac{4}{11}$
 - C) $\frac{9}{22}$
 - D) $\frac{5}{11}$
3. What is the probability that Tina chooses a red ball or a green ball?
- A) $\frac{13}{22}$
 - B) $\frac{7}{11}$
 - C) $\frac{17}{22}$
 - D) $\frac{40}{22}$
4. What is the probability that Tina does not choose a red ball?
- A) $\frac{5}{22}$
 - B) $\frac{4}{11}$
 - C) $\frac{13}{22}$
 - D) $\frac{17}{22}$
5. What is the probability that Tina chooses a yellow ball?
- A) $\frac{7}{22}$
 - B) $\frac{9}{22}$
 - C) $\frac{13}{22}$
 - D) $\frac{17}{22}$

6. A spinner has white, green, violet, indigo, and blue sections. Which of the following is the *complement* of the event that the spinner lands on violet?
- A) The spinner lands on green.
 - B) The spinner lands on white, green, or indigo.
 - C) The spinner lands on white, green, indigo, or blue.
 - D) The spinner does not land on blue.

13. There are 12 girls and 8 boys in Ms. Sander's class. Each day she randomly asks one student to take attendance. In 180 days, which is the best prediction for the number of times that the student asked will be a girl?

- A) 72
- B) 90
- C) 99
- D) 108

14. Rachel has 5 silver bracelets and 2 gold bracelets in her jewelry box. Rachel randomly picks one bracelet. Which statement **best** describes which bracelet she will probably pick?

- A) She probably will pick a gold bracelet.
- B) She definitely will pick a gold bracelet.
- C) She probably will pick a silver bracelet.
- D) She definitely will pick a silver bracelet.

15. Kim's video store received a shipment of DVDs. The table below shows the number of each type of DVD in the shipment.

DVD SHIPMENT

Type	Number of DVDs
Action	12
Science Fiction	3
Comedy	6
Western	9

Kim selects a DVD at random from the shipment. What is the *experimental probability* that she chooses a western?

- A) $\frac{1}{4}$ B) $\frac{1}{9}$ C) $\frac{9}{21}$ D) $\frac{9}{30}$

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Answer Sheet

1. _____

6. _____

11. _____

2. _____

7. _____

12. _____

3. _____

8. _____

13. _____

4. _____

9. _____

14. _____

5. _____

10. _____

15. _____

Read each question carefully. Write your answer on line provided. Show all appropriate work. Write all fractions in *simplest form*.

16. Yvonne draws a marble from a basket. She records the color and puts the marble back into the basket. The experiment is repeated several times. She records the frequency of each color in the table.

Color	Frequency
Red	7
Yellow	9
Green	14
Purple	10

What is the *experimental probability* of choosing a green marble?

ANSWER: _____

17. Jeremy has 10 shirts in his drawer: 3 red, 2 black, and 5 white. He has 5 pairs of shorts in his drawer: 3 black, and 2 khaki. What is the probability that a shirt and a pair of shorts chosen at random are both black? **Show your work below.**

ANSWER: _____

18. A hockey team has 12 girls and 9 boys. Each week the coach chooses one player at random to play goalie for the next game. What is the probability that the coach chooses a girl to be the goalie for the next game?

ANSWER: _____

19. Parker is making an ice cream sundae. The sign shows the choices of ice creams, syrups, and toppings.

ICE CREAM: vanilla or chocolate

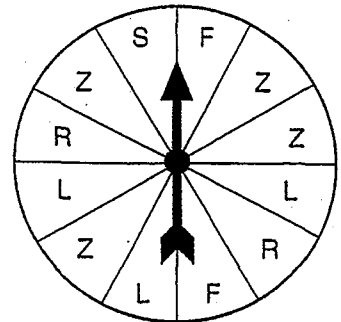
SYRUP: butterscotch, strawberry, or hot fudge

TOPPING: nuts or sprinkles

Draw a tree diagram to show all the choice Parker has for his ice cream sundae.

20. If the spinner is spun 200 times, about how many times would you expect the spinner to land on an F or S?

Show your work below.



ANSWER: _____

A box contains 6 black crayons, 4 blue crayons, 5 red crayons, 3 yellow crayons, and 2 white crayons.

21. *With replacement*, what is the **probability** of selecting a red crayon than a white crayon?
Show your work below.

ANSWER: _____

22. *With replacement*, what is the **probability** of selecting a black crayon then a blue crayon?
Show your work below.

ANSWER: _____

23. *Without replacement*, what is the **probability** of selecting a yellow crayon then a blue crayon?
Show your work below.

ANSWER: _____

24. *Without replacement*, what is the **probability** of selecting two black crayons?
Show your work below.

ANSWER: _____

25. Roy is going to see a movie over the weekend. He can choose from 2 days, 4 show times, and 2 theaters. How many possible outcomes does Roy have to see a movie? **Show your work below.**

ANSWER: _____