

TEST NAME: **7.SP.7a**  
TEST ID: **662751**  
GRADE: **07**  
SUBJECT: **Mathematics**  
TEST CATEGORY: **My Classroom**

Student: \_\_\_\_\_

Class: \_\_\_\_\_

Date: \_\_\_\_\_

1. Jonathan has a bag of 20 marbles of which 10 are red. He picks one marble from the bag, records the color, and replaces it during 10 trials. During the course of Jonathan's experiment, he chose 1 red marble for each 5 marbles drawn. What is the theoretical probability of choosing a red marble?

- A.  $\frac{1}{10}$
- B.  $\frac{1}{5}$
- C.  $\frac{1}{3}$
- D.  $\frac{1}{2}$

2. Alicia has a number cube labeled 1 to 6. She will roll the number cube one time. What is the probability Alicia will roll a 3 or a 4?

- A.  $\frac{1}{6}$
- B.  $\frac{1}{4}$
- C.  $\frac{1}{3}$
- D.  $\frac{2}{3}$

3. If a bag of 32 colored candies has 8 yellow candies, what is the probability that you will get a yellow candy if you pick one from the bag without looking?

- A.  $\frac{1}{32}$
- B.  $\frac{1}{4}$
- C.  $\frac{1}{3}$
- D.  $\frac{3}{4}$

4. Antonio has six white socks, two black socks, and four gray socks in a drawer. If he randomly chooses a sock from the drawer, what is the probability he will choose a gray sock?

- A.  $\frac{1}{12}$   
B.  $\frac{1}{4}$   
C.  $\frac{1}{3}$   
D.  $\frac{1}{2}$

5. A deck of 38 cards contains 16 blue cards, 6 red cards, and 16 yellow cards. What is the probability of randomly drawing a blue card from this deck?

- A.  $\frac{1}{16}$   
B.  $\frac{1}{3}$   
C.  $\frac{8}{19}$   
D.  $\frac{11}{19}$

6. This table shows the number of different colored stones in a bag.

Stones in Bag

Color	Number of Stones
Blue	5
Green	10
Yellow	4
Orange	6

If all the stones are of the same size and shape, what is the probability of choosing a green stone from the bag without looking?

- A.  $\frac{1}{4}$   
B.  $\frac{2}{5}$   
C.  $\frac{3}{5}$   
D.  $\frac{2}{3}$

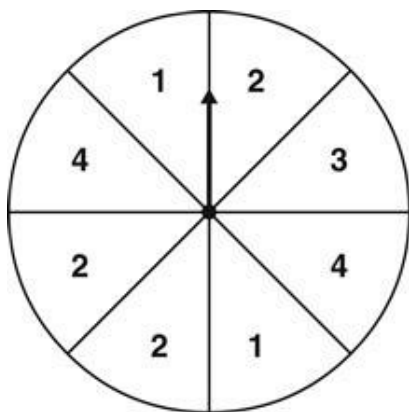
7. A deck of cards contains 13 As, 13 Bs, 13 Cs, and 13 Ds. What is the probability of randomly selecting one card that is a C?

- A.  $\frac{1}{13}$
- B.  $\frac{13}{52}$
- C.  $\frac{39}{52}$
- D.  $\frac{12}{13}$

8. Mike has a trick coin with 2 heads. Which number represents the probability of Mike flipping heads with this coin?

- A. 0
- B.  $\frac{1}{4}$
- C.  $\frac{1}{2}$
- D. 1

9. To win a game, Josh must spin the arrow on the spinner below and have it land on an odd number.



What is the probability that Josh will win the game?

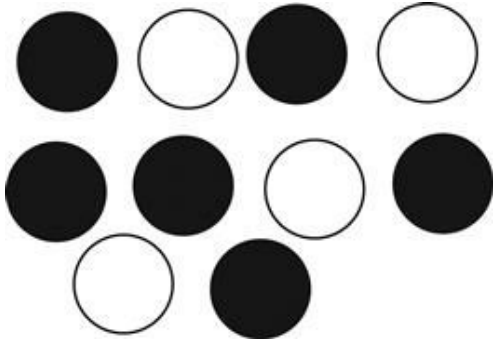
- A.  $\frac{1}{3}$
- B.  $\frac{3}{8}$
- C.  $\frac{1}{2}$
- D.  $\frac{3}{5}$

10. A box contains 6 red marbles, 4 green marbles, 3 blue marbles, and 2 yellow marbles. If one marble is chosen at random, what is the probability that it will be blue?
- A. 0.07  
B. 0.20  
C. 0.25  
D. 0.33
11. A flower shop has 11 red roses, 7 pink roses, 9 white roses, and 3 yellow roses in stock. One type of rose is randomly selected for a flower arrangement. What is the probability that the selected rose is red or yellow?
- A.  $\frac{1}{10}$   
B.  $\frac{11}{30}$   
C.  $\frac{7}{15}$   
D.  $\frac{7}{8}$
12. Alice has 4 red, 2 pink, 1 white, and 5 blue shirts in a drawer. Without looking, Alice pulled out a red shirt and put it on her bed. What is the probability Alice will pull out a blue shirt after she pulled out the red one?
- A.  $\frac{5}{12}$   
B.  $\frac{5}{11}$   
C.  $\frac{5}{7}$   
D.  $\frac{5}{6}$
13. A bag contains 34 pennies, 29 nickels, 19 quarters, and 17 dimes. What is the probability of randomly selecting one quarter?
- A.  $\frac{1}{19}$   
B.  $\frac{19}{99}$   
C.  $\frac{19}{100}$   
D.  $\frac{80}{99}$

14. Lisa has 6 blue shirts, 4 green shirts, and 2 red shirts. If Lisa pulls out one shirt without looking, what is the probability that it will be red?

- A.  $\frac{1}{5}$
- B.  $\frac{1}{6}$
- C.  $\frac{1}{4}$
- D.  $\frac{1}{2}$

15. Tiffany has 6 black chips and 4 white chips of the same size and shape in a bag.



What is the probability that Tiffany will randomly pick a black chip from the bag on her first try?

- A. 70%
- B. 60%
- C. 40%
- D. 20%

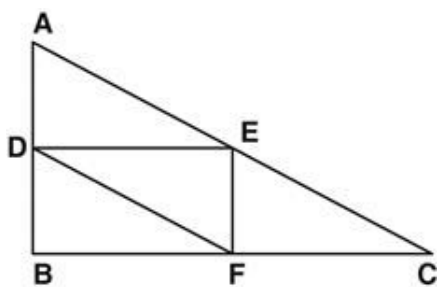
16. Marsha used these letter cards to spell Daytona Beach.



She put the cards into a bag, and then selected one card without looking. What is the probability that Marsha chose a card with the letter A on her first try?

- A.  $\frac{1}{10}$
- B.  $\frac{1}{6}$
- C.  $\frac{1}{4}$
- D.  $\frac{1}{3}$

17. In the figure shown below, Points  $D$ ,  $E$ , and  $F$  are the midpoints of the sides of  $\triangle ABC$ .



What is the probability that a randomly chosen point inside  $\triangle ABC$  is outside  $\triangle DEF$ ?

- A.  $\frac{1}{4}$
- B.  $\frac{1}{2}$
- C.  $\frac{2}{3}$
- D.  $\frac{3}{4}$

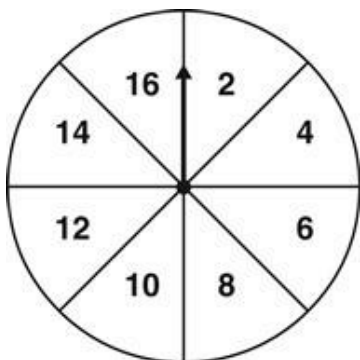
18. Jeff put the following tiles with letters on them in a bag.



Part A: If Jeff randomly chooses 2 tiles and removes them from the bag, list all possible combinations he might choose. (You do not need to worry about the order in which he chooses the 2 tiles.)

Part B: What is the probability that he will choose tiles that allow him to spell the word "AT"? Explain your answer.

19. Brian is playing a game with the spinner shown below. Each section of the spinner is the same size.



What is the probability that the arrow will land on a number that is divisible by 3 if Brian spins it one time?

- A.  $\frac{1}{8}$
- B.  $\frac{1}{7}$
- C.  $\frac{1}{4}$
- D.  $\frac{1}{3}$

20. Marshall has 8 mystery books, 4 fantasy books, and 6 reference books on a shelf. Marshall reaches for a book on the shelf, and without looking, chooses only one book. What is the probability that he will choose a reference book?

- A.  $\frac{3}{4}$
- B.  $\frac{2}{3}$
- C.  $\frac{1}{3}$
- D.  $\frac{1}{4}$

21. There are 3 yellow, 4 blue, 3 green, and 2 red candies in a bag. Without looking, Brian reaches into the bag and pulls out one piece of candy. What is the probability Brian will pull out a yellow candy?

- A.  $\frac{1}{12}$
- B.  $\frac{1}{9}$
- C.  $\frac{1}{4}$
- D.  $\frac{1}{3}$

22. Donny's mom bought 8 apples, 4 oranges, and 6 bananas at the grocery store. If she surprises him the next day with 1 random piece of fruit in his lunch, what is the probability that he will get a banana?

- A.  $\frac{1}{6}$
- B.  $\frac{1}{2}$
- C.  $\frac{1}{3}$
- D.  $\frac{1}{18}$



23. Jerry has four jackets in his closet. Without looking, he reached into his closet, pulled out a jacket, and then put it back in the closet. What is the probability that Jerry will randomly select the same jacket a second time?

A.  $\frac{1}{16}$

B.  $\frac{1}{4}$

C.  $\frac{1}{3}$

D.  $\frac{1}{2}$

24. There are 4 blue, 2 green, and 6 pink marbles in a bag. What is the probability of randomly selecting one green marble from the bag on the first try?

A.  $\frac{1}{6}$

B.  $\frac{1}{5}$

C.  $\frac{1}{3}$

D.  $\frac{5}{6}$

25. Riley tosses a coin in the air. What is the probability that the coin will land with heads showing?

A.  $\frac{1}{4}$

B.  $\frac{1}{2}$

C.  $1$

26. There are 6 blue, 2 green, and 5 pink marbles in a bag. What is the probability of randomly selecting one green marble from the bag?

A.  $\frac{2}{13}$

B.  $\frac{2}{11}$

C.  $\frac{1}{3}$

D.  $\frac{11}{13}$

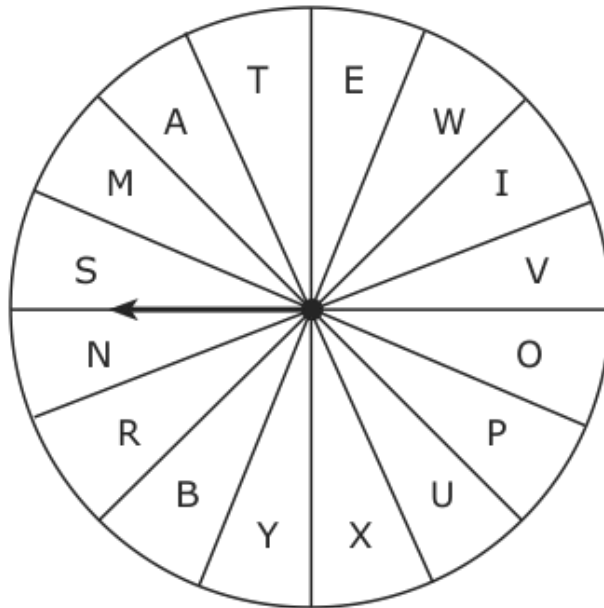
27. There are 8 students in Maria's Spanish class, including Maria. Her teacher is randomly assigning students to each of 8 desks in the room. What is the probability that Maria will be randomly selected to sit in the first desk?
- A.  $\frac{1}{64}$   
B.  $\frac{7}{64}$   
C.  $\frac{1}{8}$   
D.  $\frac{7}{8}$
28. A container contains eight alphabet tiles and four number tiles. What is the probability of randomly drawing a number tile?
- A.  $\frac{1}{12}$   
B.  $\frac{1}{3}$   
C.  $\frac{2}{3}$   
D.  $\frac{3}{2}$
29. At a regional student council convention, there were 5 students from Florida, 6 from Georgia, 4 from Alabama, and 3 from Mississippi. Each student's name was written on a piece of paper and put in a bag. One name was drawn at random. What is the probability that the student whose name was drawn was from Florida?
- A.  $\frac{1}{5}$   
B.  $\frac{1}{4}$   
C.  $\frac{5}{18}$   
D.  $\frac{5}{13}$
30. There are 8 pepperoni pizzas, 4 cheese pizzas, and 12 sausage pizzas at a party. If Joey picks 1 pizza at random to share at his table, what is the probability that it will be a pepperoni pizza?
- A.  $\frac{1}{2}$   
B.  $\frac{2}{3}$   
C.  $\frac{1}{6}$   
D.  $\frac{1}{3}$

31. There are six forks, four spoons and eight knives in a drawer. What is the theoretical probability that someone reaching into the drawer will randomly select a fork?
- A.  $\frac{1}{3}$   
 B.  $\frac{2}{9}$   
 C.  $\frac{4}{9}$   
 D.  $\frac{1}{18}$
32. The radio station manager will award a free stereo to a contest winner. There are 20 black stereos, 15 white stereos, 10 red stereos, and 5 silver stereos to choose from. What is the probability that the stereo randomly selected by the contest winner is not white?
- A.  $\frac{3}{10}$   
 B.  $\frac{3}{7}$   
 C.  $\frac{7}{10}$   
 D.  $\frac{3}{4}$
33. The whole numbers from 11 to 20 are each written on a card and turned face down. Tim selects one card. What is the probability it is a multiple of 3?
- A. 0.3  
 B. 0.4  
 C. 0.5  
 D. 1.0
34. Mark has a key ring with 10 similar keys. Three are for gym lockers, 2 are car keys, 1 is a door key, and 4 are for tool boxes. If Mark selects one key without looking, what is the probability he selects a car key or door key?
- A. 1%  
 B. 10%  
 C. 20%  
 D. 30%
35. During 1 hour, 22 red cars, 41 white cars, and 7 black cars passed the corner of Elm and Oak Streets. What is the probability that the next car passing the corner will be a white car?
- A.  $\frac{29}{70}$   
 B.  $\frac{41}{70}$   
 C.  $\frac{29}{41}$   
 D.  $\frac{41}{29}$

36. A word game has 100 tiles, including 2 blank tiles and 56 consonant tiles. There are 42 tiles with a vowel on each, and 12 have an “E.” If the tiles are turned face down, and Dante selects one, what is the probability he will select a tile with an “E” on it?

- A.  $\frac{1}{12}$
- B.  $\frac{3}{25}$
- C.  $\frac{3}{14}$
- D.  $\frac{2}{7}$

37. Carmen will spin the spinner below.



What is the probability that the spinner will land on a letter from the word **EXTRAORDINARY**?

- A.  $\frac{8}{16}$
- B.  $\frac{9}{16}$
- C.  $\frac{5}{8}$
- D.  $\frac{3}{4}$

38. Billy has a bag of 4 red marbles, 5 blue marbles, and 3 white marbles. What is the probability Billy will draw a red marble?

- A.  $\frac{1}{3}$
- B.  $\frac{1}{2}$
- C.  $\frac{3}{4}$
- D.  $\frac{4}{5}$

39. Carla spins a spinner that is divided into 6 equal sections that are numbered 1–6. What is the probability that the arrow will land on an odd number?

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

40. Melinda collected data on how long it takes her school bus to get to school after she gets on.

Minutes	20	25	30
Number of Bus Trips	4	8	2

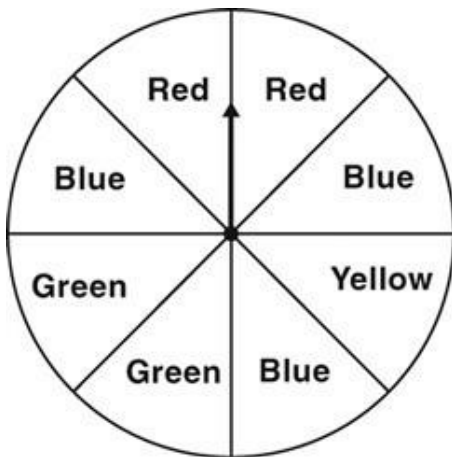
What is the probability that her next bus trip to school will be 25 minutes long?

- A.  $\frac{1}{14}$
- B.  $\frac{1}{8}$
- C.  $\frac{6}{14}$
- D.  $\frac{8}{14}$

41. The faces of a fair number cube are each labeled with a different number from 1 to 6. If the cube is tossed, what is the probability that the cube will land with a 5 on the top face?

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

42. Jasmine will spin the fair spinner below once.



If the pointer cannot land on a line, what is the probability that the pointer will land on a blue section?

- A.  $\frac{3}{5}$
- B.  $\frac{1}{8}$
- C.  $\frac{1}{4}$
- D.  $\frac{3}{8}$

43. A seven-sided number cube with the sides numbered 1, 2, 3, 4, 5, 6, 7 is rolled once. What is the probability that an even number less than 5 is rolled?

- A.  $\frac{9}{49}$
- B.  $\frac{2}{7}$
- C.  $\frac{5}{7}$
- D.  $\frac{6}{7}$

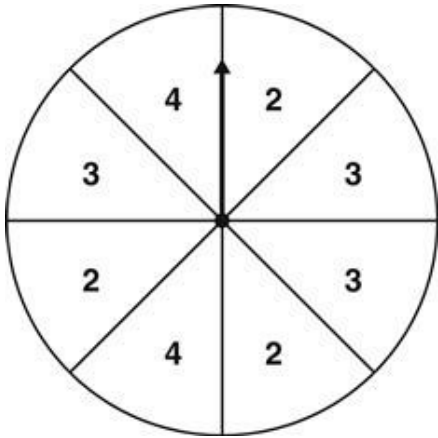
44. Sammy plays a dart game at a carnival. The dart board has 8 red balloons, 12 blue balloons, 10 white balloons, and 10 orange balloons. If everyone gets to throw until they pop a balloon, what is the probability that Sammy will pop either an orange balloon or a red balloon?

- A.  $\frac{1}{4}$
- B.  $\frac{4}{5}$
- C.  $\frac{9}{20}$
- D.  $\frac{18}{22}$

45. Mary has a box full of bows that are all the same shape and size. There are 3 red bows, 2 white bows, 4 green bows, and 3 gold bows in the box. If Mary reaches in the box without looking and pulls out one bow, what is the probability that the bow will be white?

- A.  $\frac{1}{12}$
- B.  $\frac{1}{5}$
- C.  $\frac{1}{4}$
- D.  $\frac{1}{6}$

46. The spinner shown is spun once.



What is the probability of not landing on 2?

- A.  $\frac{1}{4}$
- B.  $\frac{3}{8}$
- C.  $\frac{5}{8}$
- D.  $\frac{3}{4}$

47. A deck has 52 cards. There are 4 color groups: red, yellow, blue and green. Each group has 13 cards numbered from 1 to 13. What is the likelihood of drawing a red card on one try?

- A.  $\frac{1}{52}$
- B.  $\frac{1}{13}$
- C.  $\frac{1}{4}$
- D.  $\frac{4}{13}$

48. An animal game uses a bag that contains 200 identical circle tiles.

- 60 tiles have pictures of fish
- 40 tiles have pictures of birds
- 100 tiles have pictures of mammals

If a tile is randomly drawn from the bag without looking, what is the probability of drawing a fish tile?

- A. 0.2
- B. 0.3
- C. 0.5
- D. 0.6

49. There are 5 blue, 2 green, and 4 pink marbles in a bag. What is the probability of randomly selecting one green marble from the bag?

- A.  $\frac{2}{11}$
- B.  $\frac{2}{9}$
- C.  $\frac{1}{3}$
- D.  $\frac{9}{11}$

50. Lee is using a bag of colored marbles to model her free throw shooting. She has placed 12 red marbles in the bag to represent the free throws she makes and 8 blue marbles in the bag to represent the free throws she misses. Based on the model, what is the probability that Lee will make her next free throw?

- A. 33%
- B. 40%
- C. 60%
- D. 67%

51. A bag has 1 striped, 4 red, 6 blue, and 3 yellow marbles. A student randomly draws a marble from the bag. What is the probability of drawing a blue marble?

- A. 1:14
- B. 3:14
- C. 1:4
- D. 3:7

52. Paul put 2 orange, 1 green, 3 purple, and 2 white centimeter cubes in a container. What is the probability of drawing a purple cube out of the container on one try?

- A. 1 out of 8
- B. 1 out of 4
- C. 3 out of 8
- D. 3 out of 5



53. There are 7 boys and 6 girls in the drama club at Columbus High School. The principal randomly selects one student from the drama club to represent the school in a competition. What is the probability that the selected student is a boy?

- A.  $\frac{1}{7}$
- B.  $\frac{6}{13}$
- C.  $\frac{7}{13}$
- D.  $\frac{6}{7}$

54. A six-sided fair number cube is rolled once. What is the probability that the result is a 2 or a 5?

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

55. Which problem situation has a probability of  $\frac{1}{12}$ ?

- A. Randomly selecting a red towel from a drawer that contains 4 red towels, 4 white towels, and 4 green towels.
- B. Randomly selecting a red towel from a drawer that contains 12 red towels, 0 white towels, and 0 green towels.
- C. Randomly selecting a red towel from a drawer that contains 1 red towel, 7 white towels, and 4 green towels.
- D. Randomly selecting a red towel from a drawer that contains 1 red towel, 8 white towels, and 4 green towels.

56. Mrs. McKenzie's class consists of 12 girls and 8 boys. Each student's name is written on a slip of paper and placed in a bowl. What is the probability that a girl's name is picked at random from the bowl?

- A.  $\frac{1}{12}$
- B.  $\frac{2}{5}$
- C.  $\frac{3}{5}$
- D.  $\frac{2}{3}$

57. Each letter in the word "TEXTBOOK" is written on an identical tile and placed in a bag. What is the probability of drawing a vowel on the first try?
- A.  $\frac{1}{8}$   
B.  $\frac{1}{4}$   
C.  $\frac{3}{8}$   
D.  $\frac{1}{2}$
58. Jay has 5 quarters in his pocket. They are dated 1995, 1995, 2000, 2003, and 2004. What is the probability of Jay randomly selecting a 1995 quarter from his pocket?
- A.  $\frac{2}{3}$   
B.  $\frac{3}{5}$   
C.  $\frac{1}{2}$   
D.  $\frac{2}{5}$
59. A box contains 15 red tickets, 25 brown tickets, and 10 yellow tickets. What is the probability that a ticket selected at random is not red?
- A.  $\frac{3}{10}$   
B.  $\frac{3}{7}$   
C.  $\frac{4}{7}$   
D.  $\frac{7}{10}$
60. Rochelle sorted 150 photographs and found that she was in 42 of the photographs. What is the probability that she will not be in a photograph if she randomly pulls one from the pile?
- A. 0.21  
B. 0.28  
C. 0.72  
D. 0.79
61. A deck of 48 cards is divided equally among 6 colors. If red is one of the colors in the deck, what is the probability that the first card drawn will be red?
- A.  $\frac{1}{8}$   
B.  $\frac{1}{6}$   
C.  $\frac{5}{6}$   
D.  $\frac{7}{8}$

62. John put 4 green marbles, 2 red marbles, and 6 yellow marbles in a bag. Without looking, he pulled a marble out of the bag. What is the probability John pulls out a green marble?

A.  $\frac{1}{12}$

B.  $\frac{1}{3}$

C.  $\frac{1}{2}$

63. Julie, Marnie, Leah, and Rose each wrote her name on a piece of paper. All the papers were placed in a jar. If one name is randomly chosen from the jar, what is the probability that either Marnie's or Rose's name will be chosen?

A.  $\frac{1}{4}$

B.  $\frac{1}{2}$

C.  $\frac{3}{4}$

D.  $\frac{4}{2}$

64. There are 4 blue, 3 green, and 6 pink marbles in a bag. If all the marbles are the same size and shape, what is the probability of randomly selecting one green marble from the bag?

A.  $\frac{3}{13}$

B.  $\frac{3}{10}$

C.  $\frac{1}{3}$

D.  $\frac{10}{13}$

65. Loretta places 20 red tiles in a bag. How many blue tiles must be added to the bag to make the probability of randomly drawing a red tile equal to  $\frac{1}{10}$ ?

A. 160

B. 180

C. 200

D. 220

66. If an integer from 3 through 14 is chosen at random, what is the probability that the number chosen is NOT prime?

- A.  $\frac{1}{3}$
- B.  $\frac{5}{12}$
- C.  $\frac{1}{2}$
- D.  $\frac{7}{12}$

67. A bag contains 7 red marbles, 3 yellow marbles, and 5 blue marbles that are identical in size. If the probability of randomly selecting a red marble is  $\frac{7}{15}$ , what is the probability of randomly selecting a marble that is not red?

- A.  $\frac{7}{15}$
- B.  $\frac{8}{15}$
- C.  $\frac{7}{8}$
- D.  $\frac{2}{3}$

68. Bill has a bag that contains 7 Florida state quarters, 3 Alabama state quarters, and 5 Georgia state quarters. He will randomly select one quarter. What is the probability that Bill will select a Florida state quarter?

- A.  $\frac{7}{8}$
- B.  $\frac{7}{15}$
- C.  $\frac{1}{7}$
- D.  $\frac{1}{15}$

69. A spinner is divided into 12 equal parts. The probability of spinning an  $x$  is  $\frac{3}{4}$ . How many of the parts are labeled  $x$ ?

- A. 3
- B. 4
- C. 7
- D. 9

70. A dog had a litter of 9 puppies. Four of the puppies were male and five were female. What is the probability that a puppy chosen at random is not a female?

- A.  $\frac{1}{4}$
- B.  $\frac{4}{9}$
- C.  $\frac{1}{2}$
- D.  $\frac{5}{9}$

71. Fred has a bag containing 2 red, 8 blue, 5 green, and 10 white marbles that are all the same size and shape. What is the probability of randomly choosing a white marble on the first pick?
- A.  $\frac{2}{25}$   
B.  $\frac{1}{5}$   
C.  $\frac{8}{25}$   
D.  $\frac{2}{5}$
72. Jenny will randomly select one prize coupon from a jar. The jar contains 9 book coupons, 6 pizza coupons, 27 drink coupons, and 3 computer game coupons that are identical in size and shape. What is the probability that the coupon Jenny selects will be a drink coupon or a computer game coupon?
- A.  $\frac{1}{3}$   
B.  $\frac{1}{2}$   
C.  $\frac{3}{5}$   
D.  $\frac{2}{3}$
73. A spinner is numbered 1 through 9. If all numbers are equally likely, what is the probability that an even number will be spun on the spinner?
- A.  $\frac{1}{9}$   
B.  $\frac{4}{9}$   
C.  $\frac{1}{2}$   
D.  $\frac{4}{5}$
74. There are 11 girls and 13 boys in a math class. If a student is selected at random, what is the probability that a boy will be selected?
- A.  $\frac{13}{11}$   
B.  $\frac{11}{24}$   
C.  $\frac{13}{24}$

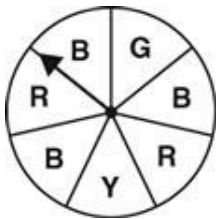
75. There are 8 blue marbles, 6 red marbles, and 4 white marbles in a jar. If a marble is selected at random from the jar, what is the probability that it is not red?

- A.  $\frac{2}{9}$
- B.  $\frac{1}{3}$
- C.  $\frac{5}{9}$
- D.  $\frac{2}{3}$

76. Three boys are walking side-by-side. One boy has a shirt with no sleeves, one has short sleeves, and one has long sleeves. What is the probability that the boy with the short sleeves is walking in the middle?

- A.  $\frac{1}{9}$
- B. 0.33
- C. 0.50
- D.  $\frac{2}{3}$

77. Nate made this spinner for his game.



What is the probability that the pointer will stop on a section labeled B?

- A.  $\frac{1}{7}$
- B.  $\frac{1}{3}$
- C.  $\frac{2}{3}$
- D.  $\frac{3}{7}$

78. Charles rolled a number cube labeled from 1 to 6. What is the probability that he will roll a number greater than 2?

- A.  $\frac{1}{6}$
- B.  $\frac{3}{6}$
- C.  $\frac{4}{6}$
- D.  $\frac{5}{6}$

79. Shanovia drew a card from a standard deck of 52 playing cards. What is the probability Shanovia drew 1 of the 4 aces?

A.  $\frac{1}{52}$

B.  $\frac{1}{13}$

C.  $\frac{1}{4}$

D. 1

80. Every day, John passes through Main Street as he drives to work. If the signal light at Main Street, from this direction, is set to stay on red 90 seconds, green 150 seconds, and yellow 20 seconds, what is the probability of the light being red when John reaches Main Street on his drive to work?

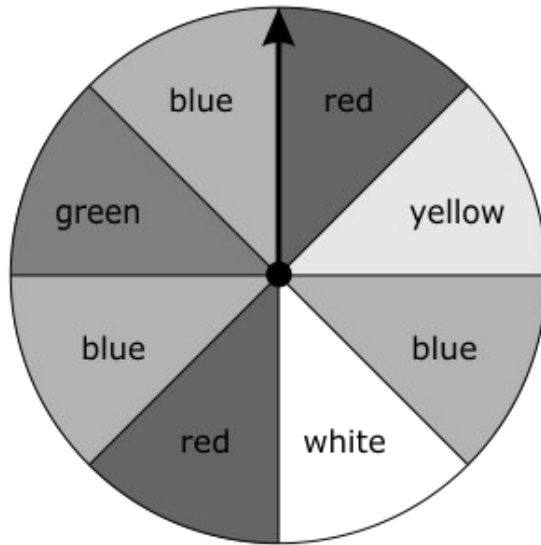
A.  $\frac{9}{26}$

B.  $\frac{11}{26}$

C.  $\frac{1}{13}$

D.  $\frac{17}{26}$

81. The spinner below is spun one time.



What is the probability of the spinner stopping on blue?

A.  $\frac{1}{3}$

B.  $\frac{3}{5}$

C.  $\frac{3}{8}$

82. In a container, Samantha has different colored gum: 2 white, 5 green, 6 blue, and 7 orange. If Samantha randomly selects a piece of gum, what is the probability she will select blue?

A.  $\frac{3}{7}$

B.  $\frac{3}{10}$

C.  $\frac{1}{14}$

D.  $\frac{1}{20}$



83. A department store received a shipment of 25 microwave ovens, 3 of which are red in color. If the order in which the ovens are unpacked is completely random, what is the probability that the first oven unpacked is not red in color?

- A.  $\frac{1}{28}$
- B.  $\frac{1}{22}$
- C.  $\frac{3}{25}$
- D.  $\frac{22}{25}$

84. Thomas has 4 red, 2 green, and 2 yellow marbles in a bag. Without looking, he reaches in the bag, pulls out a green marble, and puts it on a table. He reaches back into the bag. What is the probability Thomas will pull out a yellow marble?

- A.  $\frac{2}{7}$
- B.  $\frac{1}{4}$
- C.  $\frac{1}{7}$
- D.  $\frac{1}{8}$

85. Fifteen table tennis balls numbered 1 through 15 are placed in a bag. One ball is drawn from the bag without looking. What is the probability an odd number will be on the ball that is drawn?

- A.  $\frac{1}{15}$
- B.  $\frac{8}{15}$
- C.  $\frac{7}{15}$
- D.  $\frac{8}{7}$

86. There are 3 red marbles, 2 yellow marbles, and 7 purple marbles in a jar. What is the probability of not randomly drawing a purple marble on the first try?

- A.  $\frac{2}{7}$
- B.  $\frac{5}{12}$
- C.  $\frac{7}{12}$
- D.  $\frac{5}{7}$

87. John opens a package of multi-colored candy. In the package, there are 6 blue, 7 red, 4 yellow, and 9 green pieces of candy. If John randomly selects a piece, what is the probability he will select a red piece of candy?
- A. 7 out of 10
  - B. 7 out of 13
  - C. 7 out of 19
  - D. 7 out of 26

88. One of the cards below is chosen at random.



What is the probability of choosing a card with an odd number?

- A.  $\frac{1}{5}$
  - B.  $\frac{2}{5}$
  - C.  $\frac{3}{5}$
89. Lorenzo will flip a coin ten times. What is the probability Lorenzo's 9th flip will land on a head?
- A.  $\frac{4}{5}$
  - B.  $\frac{1}{2}$
  - C.  $\frac{1}{3}$
  - D.  $\frac{1}{5}$

90. There are 11 blue pencils and 14 yellow pencils in a box. If a pencil is randomly chosen from the box, what is the probability that it will be blue?

A.  $\frac{1}{14}$

B.  $\frac{11}{25}$

C.  $\frac{14}{25}$

D.  $\frac{11}{14}$

91. Inez's piggy bank has 10 quarters, 6 dimes, 3 nickels, and 2 pennies. What is the probability of Inez picking a nickel out of the piggy bank without looking?

A.  $\frac{1}{7}$

B.  $\frac{1}{5}$

C.  $\frac{1}{3}$

D.  $\frac{1}{2}$

92. Nicolae has a collection of miniature cars. If he has 6 yellow cars, 4 white cars, 2 blue cars, 5 red cars, and 3 silver cars in his toy box, what is the probability that Nicolae will randomly select a red car?

A.  $\frac{1}{5}$

B.  $\frac{1}{4}$

C.  $\frac{1}{3}$

D.  $\frac{1}{2}$

93. Claire rolled a number cube with sides labeled 1 through 6. What is the probability Claire rolled an even number?

A.  $\frac{1}{2}$

B.  $\frac{1}{3}$

C.  $\frac{1}{6}$

94. Myra has 5 blue shirts, 2 black shirts, and 5 red shirts randomly placed in her drawer. Yesterday, she wore one of the red shirts and did not put the shirt back in the drawer. Today, she took a shirt from the drawer without looking. What is the probability that the shirt she took out of the drawer today is not red?
- A.  $\frac{7}{11}$   
 B.  $\frac{4}{7}$   
 C.  $\frac{3}{7}$   
 D.  $\frac{4}{11}$

95. Tim conducted a survey of the music preferences of his classmates. The results are shown below.

Music Preference

Type of Music	Number of Students
Country	10
Pop	12
Rock	10
Rap	5
Oldies	3

What is the probability, to the nearest percent, that one of these students, chosen at random, will prefer Country or Rap music?

- A. 15%  
 B. 25%  
 C. 38%  
 D. 50%
96. There are 8 yellow balls and 12 red balls in a bag. What is the likelihood that the first ball drawn from the bag is yellow?
- A.  $\frac{2}{5}$   
 B.  $\frac{3}{5}$   
 C.  $\frac{2}{3}$   
 D.  $\frac{3}{2}$
97. A spinner has 5 equal sectors numbered 1 through 5. What is the probability that the result of a spin will be an odd number?
- A. 20%  
 B. 30%  
 C. 40%  
 D. 60%

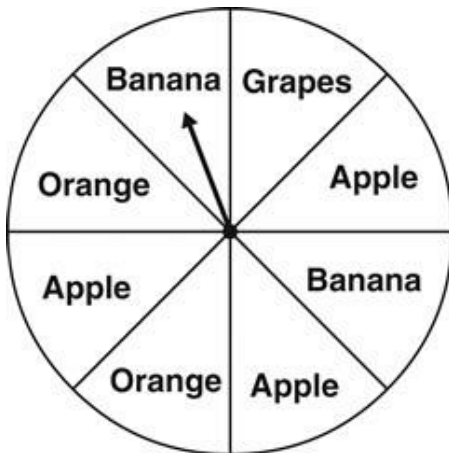
98. Which fraction shows the probability of getting an even number when you toss a fair number cube with faces labeled 1, 8, 14, 39, 60, and 76?

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

99. Kylie wears different colored clips in her hair. She has 3 red, 1 blue, 4 yellow, and 2 green clips. Kylie randomly selects one clip from a box. What is the probability that the clip will be yellow?

- A.  $\frac{1}{10}$
- B.  $\frac{1}{6}$
- C.  $\frac{2}{5}$
- D.  $\frac{2}{3}$

100. What is the probability of the spinner stopping on a space with the name of a fruit?



- A.  $\frac{1}{4}$
- B.  $\frac{3}{8}$
- C.  $\frac{1}{2}$
- D.  $\frac{5}{8}$

101. There are 10 black socks and 10 red socks in a drawer. What is the theoretical probability of choosing a red sock?

- A.  $\frac{1}{5}$
- B.  $\frac{1}{4}$
- C.  $\frac{1}{3}$
- D.  $\frac{1}{2}$

102. Mario rolled a six-sided number cube, numbered 1–6. What is the probability that it will show a number less than or equal to 3 on top of the cube?

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

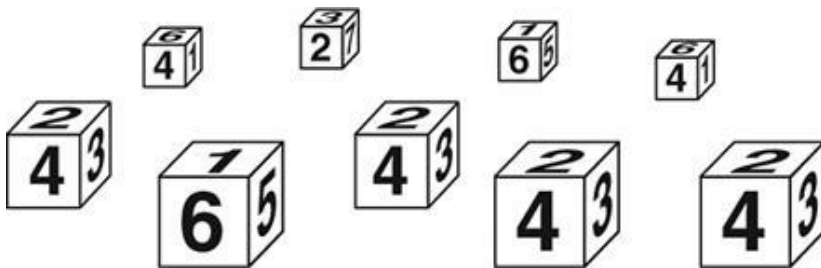
103. A football team is selling raffle tickets for \$5.00 each. Isaac purchased 10 tickets. The team sold a total of 300 tickets. What is the probability that Issac will win the raffle?

- A.  $\frac{1}{30}$
- B.  $\frac{1}{29}$
- C.  $\frac{1}{6}$
- D.  $\frac{1}{3}$

104. Billy has 2 nickels, 5 dimes, 2 quarters, and 3 pennies in his pocket. If Billy randomly selects a coin from his pocket, what is the probability he selected a nickel?

- A.  $\frac{1}{5}$
- B.  $\frac{1}{6}$
- C.  $\frac{1}{10}$
- D.  $\frac{1}{12}$

105. Malik rolled a six-sided number cube 9 times. He counted the number of times the number 2 landed on top of the cube. The results are shown below.



What fraction represents the results of Malik's experiment?

- A.  $\frac{2}{4}$
- B.  $\frac{4}{2}$
- C.  $\frac{9}{4}$
- D.  $\frac{4}{9}$

106. Mr. Herrera's class has 13 girls and 7 boys. If all the students in Mr. Herrera's class are present, what is the probability that the first student randomly selected to answer a homework question will not be a boy?

- A.  $\frac{7}{20}$
- B.  $\frac{1}{2}$
- C.  $\frac{7}{13}$
- D.  $\frac{13}{20}$

107. Louis counted the number of books 63 students checked out of the library in the month of October and recorded them in the table below.

Library Book  
Checkout

Number of Books	Number of Students
0	5
1	12
2	20
3	18
4	6
5 or more	2

Based on this data, what is the probability that a student will check out 3 or more books next month?

- A.  $\frac{2}{7}$   
B.  $\frac{8}{21}$   
C.  $\frac{26}{63}$   
D.  $\frac{37}{64}$

108. The 8 tickets below are in the final drawing to win a free trip to New York.

Tickets in  
Final Drawing

Ticket Number
102345
103640
234894
104765
456780
657432
018774
567432

Ms. Waxman will draw a ticket while blindfolded. What is the probability that the ticket she draws will end with a digit of 5?

- A.  $\frac{1}{8}$   
B.  $\frac{1}{4}$   
C.  $\frac{1}{3}$   
D.  $\frac{1}{2}$



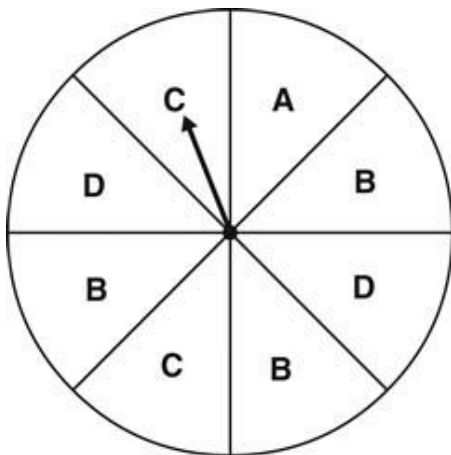
109. A marble is drawn at random from a bag containing 2 blue marbles, 3 yellow marbles, and 7 orange marbles. What is the probability that the marble drawn is not yellow?

- A.  $\frac{1}{6}$
- B.  $\frac{1}{4}$
- C.  $\frac{7}{12}$
- D.  $\frac{3}{4}$

110. Natalia is a girl in a math class with a total of 11 girls and 9 boys. If the teacher selects one student at random to go to the board, what is the probability that Natalia will be selected?

- A. 5%
- B. 9%
- C. 11%
- D. 55%

111. What is the probability of the arrow landing on C?



- A.  $\frac{1}{4}$
- B.  $\frac{3}{8}$
- C.  $\frac{1}{2}$
- D.  $\frac{3}{4}$

112. Jack rolls a fair number cube with sides labeled 1, 2, 3, 4, 5, and 6. What is the probability that he rolls a number less than 6?

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

113. John's teacher wrote the letters W, I, N, N, E, and R on separate cards and put them into a hat. Without looking, John pulled a card out of the hat. What is the probability John will pull out a vowel?

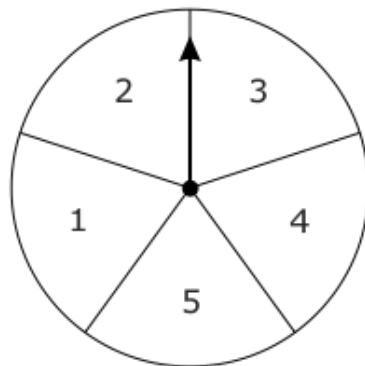
A.  $\frac{1}{6}$

B.  $\frac{1}{3}$

C.  $\frac{1}{2}$

D.  $\frac{2}{3}$

114. Sue spins the spinner below one time.



What is the probability of spinning an even number?

A. 2 : 3

B. 1 : 2

C. 2 : 5

115. A teacher wrote 3 math questions, 5 reading questions, and 4 science questions on slips of paper and placed them in a bowl. Each question was written on a different piece of paper. A student picked a question at random from the bowl. What is the probability the student picked a math question?

A.  $\frac{3}{4}$

B.  $\frac{3}{5}$

C.  $\frac{1}{3}$

D.  $\frac{1}{4}$

116. In the table below, Carlos listed the number of each type of coin he has in a jar.

**Carlos' Coins**

Coin Type	Quantity
penny	3
nickel	2
dime	1
quarter	5

If Carlos randomly selects a coin, what is the probability he will select a penny?

A.  $\frac{1}{11}$

B.  $\frac{1}{8}$

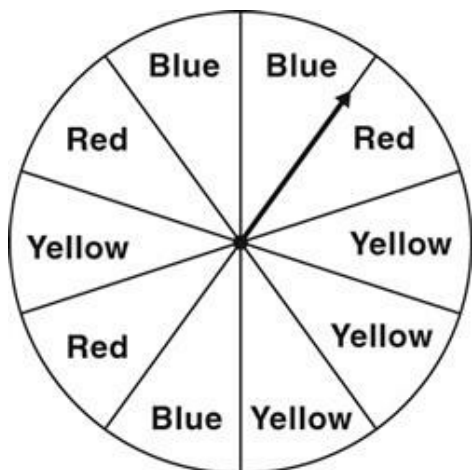
C.  $\frac{3}{11}$

D.  $\frac{3}{8}$

117. If Jermaine randomly picks a number from 1 to 20, what is the probability that the number he chooses will not be a multiple of 3?

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

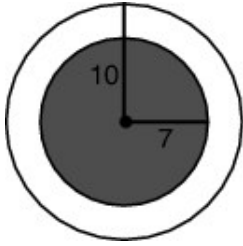
118. The fair spinner below is to be spun once.



What is the probability of the pointer landing on yellow?

- A.  $\frac{3}{10}$
- B.  $\frac{1}{3}$
- C.  $\frac{2}{5}$
- D.  $\frac{2}{3}$

119. Tim throws a dart at the dartboard shown below and hits the dartboard. The dartboard has a shaded part and an unshaded part.



What is the probability of Tim's dart hitting the unshaded part of the board?

- A.  $\frac{49\pi}{100\pi}$
- B.  $\frac{51\pi}{100\pi}$
- C.  $\frac{49\pi}{51\pi}$
- D.  $\frac{100\pi}{51\pi}$
120. There are 6 girls and 4 boys in the debate club at Columbus High School. The principal randomly selects one student from the debate club to represent the school in a competition. What is the probability that the selected student is a girl?
- A.  $\frac{1}{6}$
- B.  $\frac{2}{5}$
- C.  $\frac{3}{5}$
- D.  $\frac{2}{3}$
121. Jesse is playing a game with a number cube with faces numbered 1 through 6. What is the probability of rolling a number that is even and a multiple of 3?
- A.  $\frac{1}{2}$
- B.  $\frac{1}{3}$
- C.  $\frac{1}{5}$
- D.  $\frac{1}{6}$

122. Some colored balls were put into a box. There are 5 brown, 6 blue, and 7 white balls. If 1 ball is chosen at random from the box, what is the probability that the ball will be blue?

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

123. Franco is choosing a shape from the bag of shapes shown below.



If Franco chooses one shape without looking, what is the probability he will choose a parallelogram?

- A.  $\frac{1}{7}$
- B.  $\frac{3}{4}$
- C.  $\frac{2}{7}$
- D.  $\frac{5}{14}$

124. Megan's treasure box contains these colored stones: 2 green, 3 yellow, 1 red, 2 orange, and 4 pink. Each stone is the same shape and size. Megan will randomly pick one stone from the box. What is the probability that the stone she chooses will be either pink or green?

- A. 50%
- B. 33%
- C. 25%
- D. 16%

125. Kelvin will spin a spinner with five equal sections numbered 1 through 5. What is the probability Kelvin's spin will land on an even number?

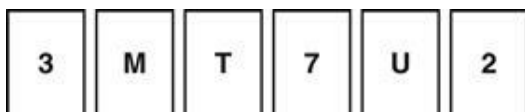
- A.  $\frac{1}{5}$
- B.  $\frac{2}{5}$
- C.  $\frac{1}{2}$
- D.  $\frac{3}{5}$

126. There are 7 boys and 4 girls in the chess club at Smith Middle School. The principal randomly selects one student from the chess club to represent the school in a competition. What is the probability that the selected student is a girl?
- A.  $\frac{1}{4}$   
 B.  $\frac{4}{11}$   
 C.  $\frac{4}{7}$   
 D.  $\frac{7}{11}$

127. A coin collection contains exactly 135 quarters, dimes, and nickels. When one coin is selected at random, the probability that the coin selected will be a quarter is  $\frac{2}{9}$ . What is the total number of dimes and nickels in the collection?
- A. 105  
 B. 90  
 C. 45  
 D. 30

128. Steven has a bag with 4 red marbles, 1 black marble, and 5 white marbles. What is the probability that Steven will pull a black marble out of the bag?
- A.  $\frac{1}{5}$   
 B.  $\frac{4}{5}$   
 C.  $\frac{1}{10}$   
 D.  $\frac{4}{10}$

129. The cards are used in a game. Some cards have a letter on them and some have a number on them.



If a player takes one card without looking, what is the probability it will be a card with a letter on it?

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

130. Consider the positive whole number factors of 54. What is the probability that one of these factors chosen at random is a multiple of 3?

- A.  $\frac{1}{8}$
- B.  $\frac{1}{4}$
- C.  $\frac{5}{8}$
- D.  $\frac{3}{4}$

131. Each of the eight letters of the word "OKLAHOMA" is placed into a bag. Terri chooses 1 letter at random from the bag. What is the probability that she will choose an "A" or an "O"?

- A.  $\frac{1}{8}$
- B.  $\frac{1}{4}$
- C.  $\frac{1}{2}$
- D. 1

132. Zach rolls a number cube with sides labeled 1 through 6. What is the probability Zach will roll the number 2?

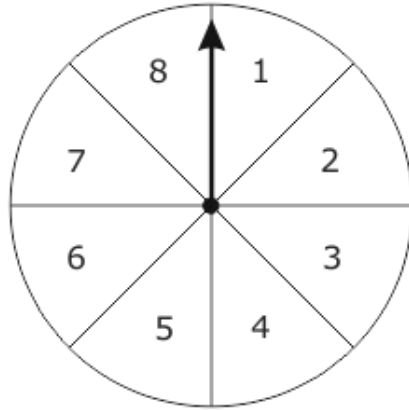
- A.  $\frac{1}{6}$
- B.  $\frac{1}{3}$
- C.  $\frac{1}{2}$

133. There are 8 boys and 6 girls in the jazz band at Oak Hill High School. The principal randomly selects one student from the jazz band to represent the school in a competition. What is the probability that the selected student is a boy?

- A.  $\frac{1}{8}$
- B.  $\frac{3}{7}$
- C.  $\frac{4}{7}$
- D.  $\frac{3}{4}$



134. William spins the spinner below one time.



What is the probability that the spinner lands on the 2 or 4?

- A.  $\frac{1}{8}$
- B.  $\frac{1}{4}$
- C.  $\frac{1}{3}$

135. Mr. Sanchez gave a 10-question true or false quiz. He told the class that 6 questions on the quiz were true. What is the likelihood that the last question on the quiz would be false?

- A.  $\frac{2}{5}$
- B.  $\frac{1}{2}$
- C.  $\frac{3}{5}$
- D.  $\frac{9}{10}$

136. Christine has 3 English novels, 2 Spanish novels, and 1 French novel in her locker. She randomly picks out one novel to read. What is the probability that Christine will pick a Spanish novel?
- A.  $\frac{2}{3}$
- B.  $\frac{1}{2}$
- C.  $\frac{2}{5}$
- D.  $\frac{1}{3}$
137. A deck of 28 cards contains 6 blue cards, 13 red cards, and 9 yellow cards. What is the probability of randomly drawing a blue card from this deck?
- A.  $\frac{1}{6}$
- B.  $\frac{3}{14}$
- C.  $\frac{1}{3}$
- D.  $\frac{11}{14}$
138. On a toss of a fair number cube, what is the probability of rolling a number that is not 1?
- A. 0
- B.  $\frac{1}{6}$
- C.  $\frac{5}{6}$
- D. 1
139. Of the 26 contestants in a talent show, 8 are singers. What is the probability that a randomly selected contestant will be a singer?
- A.  $\frac{9}{13}$
- B.  $\frac{4}{13}$
- C.  $\frac{1}{8}$
- D.  $\frac{1}{26}$

140. There are 8 yellow marbles and 4 blue marbles in a bag. What is the theoretical probability that a marble drawn randomly from the bag will be yellow?

- A.  $\frac{1}{12}$
- B.  $\frac{1}{8}$
- C.  $\frac{1}{2}$
- D.  $\frac{2}{3}$

141. Mrs. Harris has 5 blue, 8 red, 3 green, and 7 yellow candies in a bag. If Mrs. Harris randomly selects a candy, what is the probability she will select a yellow or blue candy?

- A.  $\frac{5}{23}$
- B.  $\frac{7}{23}$
- C.  $\frac{11}{23}$
- D.  $\frac{12}{23}$

142. The table below shows the names of a group of grade 7 students.

Megan	Michelle	Lisa
Michael	George	Kevin
William	Anthony	Steven
Kate	Carol	Mary
Susan	David	Edward
Karen	Monica	Adam
Sarah	Jason	Jennifer
Rachel	Laura	Thomas

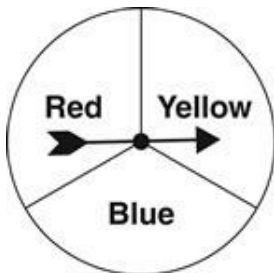
Each student writes his/her name on a plastic chip and puts it in a bag. One chip is picked from the bag at random.

Part A. What is the probability that the name on the chip starts with a letter that comes before M in the alphabet?

Part B. How does the probability change if the names that start with the letter M are also included in Part A?

Use words, numbers, and/or pictures to show your work.

143. Amy spun the spinner below 4 times. Each time the spinner landed on yellow.



What is the probability that the spinner will land on yellow if Amy spins it a fifth time?

- A.  $\frac{1}{5}$
- B.  $\frac{1}{3}$
- C.  $\frac{4}{5}$
- D. 1

144. Brian placed each letter of the alphabet on pieces of paper in a box. What is the probability that Brian will randomly pick the letter 'x' or the letter 'y'?

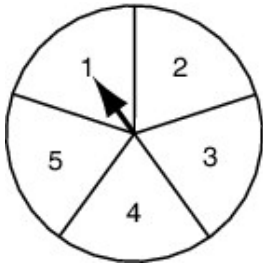
A.  $\frac{7}{26}$

B.  $\frac{9}{26}$

C.  $\frac{2}{13}$

D.  $\frac{1}{13}$

145. Leslie is using the spinner below in a game she is playing.



What is the probability that Leslie's next spin will land on an even number?

A. 20%

B. 40%

C. 60%

D. 67%

146. A deck of 32 cards contains 10 blue cards, 13 red cards, and 9 yellow cards. What is the probability of randomly drawing a blue card from this deck?

A.  $\frac{1}{10}$

B.  $\frac{5}{16}$

C.  $\frac{1}{3}$

D.  $\frac{11}{16}$

147. The middle school offers the following classes: art, French, Spanish, journalism, drama, and dance. Students are assigned to classes randomly. What is the probability of a student being assigned to the art class?
- A.  $\frac{5}{6}$
  - B.  $\frac{2}{3}$
  - C.  $\frac{1}{2}$
  - D.  $\frac{1}{6}$

148. A bag contains  $x$  different colored marbles. If one marble is selected at random, the probability that the marble selected will be green is  $\frac{3}{8}$ . Which of the following could be the value of  $x$ ?
- A. 105
  - B. 120
  - C. 135
  - D. 147

149. Evan has a bag of 8 red pencils, 12 green pencils, and 10 yellow pencils. If Evan randomly selects a pencil, what is the probability he will select a green pencil?
- A.  $\frac{1}{3}$
  - B.  $\frac{2}{5}$
  - C.  $\frac{1}{2}$
  - D.  $\frac{2}{3}$

150. Kelly will roll a number cube labeled 1 to 6. What is the probability Kelly will roll a number greater than 3?

A.  $\frac{1}{3}$

B.  $\frac{1}{2}$

C.  $\frac{2}{3}$

D.  $\frac{5}{6}$

151. Clare was asked to bake a cake with only 1 red jelly bean embedded in the cake mixture. A door prize will be given to the person who gets the slice with the jelly bean. If the cake will be cut into 12 equal slices, what is the probability of getting the slice with the jelly bean?

A.  $\frac{12}{11}$

B.  $\frac{1}{12}$

C.  $\frac{11}{12}$

D.  $\frac{1}{11}$

152. Mr. Lang has 6 students who own pets out of a class of 24 students. If he randomly chooses a student to win a gift certificate to a pet store, what is the probability the student does not own a pet?

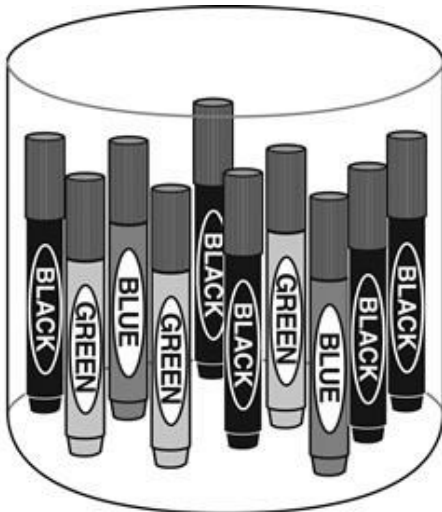
A.  $\frac{6}{24}$

B.  $\frac{6}{18}$

C.  $\frac{12}{18}$

D.  $\frac{18}{24}$

153. Ken has the same kind of markers in different colors. There are 2 blue, 3 green, and 5 black markers. Ken put his markers in a jar and mixed them up.

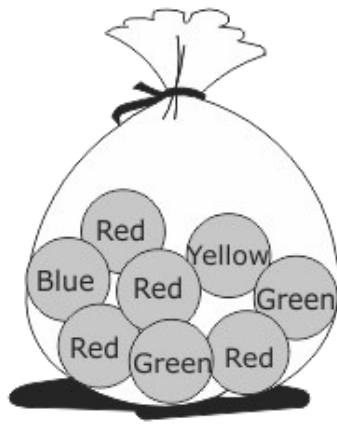


He will choose 1 marker without looking. What is the probability that the marker he chooses will be green?

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



154. Without looking, Carlos pulls a marble out of the bag below.



What is the probability Carlos will pull out a green marble?

- A.  $\frac{1}{3}$
- B.  $\frac{1}{4}$
- C.  $\frac{1}{7}$
- D.  $\frac{1}{8}$

155. A deck of cards has 15 red cards, 10 blue cards, and 5 green cards. What is the probability that a card drawn from the deck without looking will not be a blue card?

- A.  $\frac{10}{30}$
- B.  $\frac{20}{30}$
- C.  $\frac{10}{20}$
- D.  $\frac{1}{30}$

156. A dodecahedron is a twelve-sided solid figure. Each face of a certain dodecahedron is painted either blue or green. When the figure is rolled, the probability of it landing with a blue face up is  $\frac{2}{3}$ . How many faces are blue?

- A. 8
- B. 6
- C. 5
- D. 3

157. The letters R, I, T, H, M, A, I, C are put in a hat. If one letter is drawn from the hat, what is the probability that is a member of the set M, A, T, H?

- A.  $\frac{1}{16}$
- B.  $\frac{1}{2}$
- C.  $\frac{15}{16}$
- D.  $1$

158. Mr. Woosley is assigning group projects to 24 students. To form the groups, each student will randomly select a slip of paper with the name of a continent on it from a bag. The student will keep the slip of paper. The number of slips of paper in the bag with each continent name is shown below.

Africa -	6
Asia -	8
Australia -	4
Europe -	6

What is the probability that a student in Mr. Woosley's class will not be assigned a project on Australia?

- A.  $\frac{2}{3}$
- B.  $\frac{3}{4}$
- C.  $\frac{1}{5}$
- D.  $\frac{5}{6}$

159. Each letter of the word ALGEBRA is written on identical slips of paper and placed in a box. If a slip of paper is selected from the box without looking, what is the probability that the slip of paper will not have the letter A on it?

- A.  $\frac{2}{7}$
- B.  $\frac{2}{5}$
- C.  $\frac{5}{7}$
- D.  $\frac{6}{7}$

160. Omar put 3 yellow marbles, 5 green marbles, and 2 red marbles in a bag. If he shakes the bag and randomly takes out a marble, what is the probability that the marble will not be red?

- A.  $\frac{1}{5}$
- B.  $\frac{2}{3}$
- C.  $\frac{2}{3}$
- D.  $\frac{4}{5}$

161. One marble is randomly selected from a bag containing 8 blue, 12 red, and 20 green marbles. Which conclusion about the outcome is correct?

- A. The probability of selecting green is least.
- B. The probability of selecting red is the greatest.
- C. The probability of selecting blue is the same as red.
- D. The probability of selecting blue or red is the same as green.

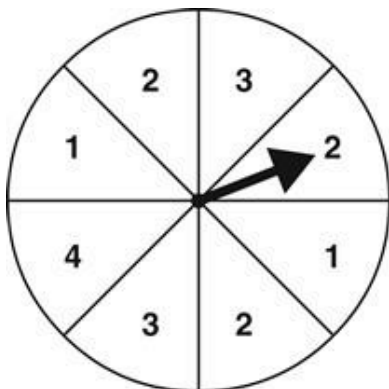
162. The table shows the percentage of students at West Creek Middle School who participate in each activity.

Activity	Percentage
Play an instrument	26
Sing in a choir	75
Play sports	55

If a student is selected at random, what is the probability the student does not sing in a choir?

- A. 19%
- B. 25%
- C. 75%
- D. 95%

163. The fifth graders are using a spinner in the game they are playing.



What is the probability that the pointer will stop on a 3?

- A.  $\frac{1}{8}$
- B.  $\frac{2}{8}$
- C.  $\frac{3}{8}$
- D.  $\frac{6}{8}$

164. There are 13 boys and 12 girls in Mrs. Allen's class. What is the probability that a randomly selected student is a girl?

A.  $\frac{1}{12}$

B.  $\frac{12}{25}$

C.  $\frac{13}{25}$

D.  $\frac{12}{13}$

165. A bag contains 5 red marbles, 2 blue marbles, and 7 green marbles. Jared selects one marble at random. What is the probability he will select a marble that is not blue?

A.  $\frac{2}{14}$

B.  $\frac{2}{12}$

C.  $\frac{10}{12}$

D.  $\frac{12}{14}$

166. Clayton is flipping a fair coin. (A fair coin is one that is equally likely to land on heads or tails.)

**Part A:** What is the probability that on the next toss, the coin will land on heads?

**Part B:** The coin lands on heads three times in a row, so Clayton thinks it will land on tails next time. Do you agree or disagree with Clayton? Explain your reasoning.

167. Of the 54 students in the school band, 36 are in the seventh grade. If a student from the band is selected at random, what is the probability that the student is in seventh grade?

A.  $\frac{1}{3}$

B.  $\frac{1}{2}$

C.  $\frac{2}{3}$

D.  $\frac{3}{5}$

168. A bag contains 13 United States coins, 11 Canadian coins, and 11 Mexican coins. If Carlos selects one coin at random, what is the probability the coin he selects is a United States coin?

- A.  $\frac{1}{13}$
- B.  $\frac{13}{35}$
- C.  $\frac{13}{22}$
- D.  $\frac{22}{35}$

169. Alice's sock drawer contains the following pairs of socks: 2 red, 4 brown, 3 black, 1 grey, and 2 white. If Alice randomly picks a pair of socks from the drawer, what is the probability that the pair she chooses is not brown?

- A. 3 out of 12
- B. 4 out of 12
- C. 8 out of 12
- D. 12 out of 8

170. Samantha put 1 cherry in a cake. She cut the cake into 12 pieces. She and each of her 5 friends ate 2 pieces of cake each. What is the probability that Samantha will get the piece with the cherry?

- A.  $\frac{1}{12}$
- B.  $\frac{1}{6}$
- C.  $\frac{1}{5}$
- D.  $\frac{1}{3}$

171. A bag contains 3 red balloons, 2 purple balloons, 4 yellow balloons, 2 pink balloons, and 1 brown balloon. Without looking, Melissa pulls out a balloon. What is the probability Melissa pulls out a pink or brown balloon?

- A. 25%
- B. 30%
- C. 33%

172. Rosita tosses a fair number cube, with sides numbered 1–6, many times. In approximately what fraction of the tosses should an even number appear on the top?

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

173. Carla rolls a number cube labeled 1 through 6. What is the probability that she will roll a number less than 3?
- A. 1:6
  - B. 2:6
  - C. 3:6
  - D. 4:6
174. In a bag of marbles, 3 are blue, 7 are red, 5 are green, and 6 are yellow. If one marble is chosen at random from the bag, what is the probability that the marble chosen is red?
- A.  $\frac{1}{7}$
  - B.  $\frac{1}{3}$
  - C.  $\frac{2}{3}$
  - D.  $\frac{6}{7}$
175. Joey has a spinner with 10 colored sections of equal size. This spinner has 1 red, 4 green, and 5 blue sections. If Joey spins the arrow of this spinner, what is the probability that it lands on the color blue?
- A.  $\frac{1}{10}$
  - B.  $\frac{1}{5}$
  - C.  $\frac{2}{5}$
  - D.  $\frac{1}{2}$
176. In a bag of 40 marbles, 10 are green. What is the probability of choosing a green marble from the bag on one try?
- A.  $\frac{1}{5}$
  - B.  $\frac{1}{4}$
  - C.  $\frac{1}{40}$
  - D.  $\frac{1}{10}$
177. A marble is drawn at random from a bag containing 2 blue marbles, 3 yellow marbles, and 7 orange marbles. What is the probability that the marble is not yellow and not blue?
- A.  $\frac{1}{4}$
  - B.  $\frac{5}{12}$
  - C.  $\frac{3}{4}$
  - D.  $\frac{7}{12}$

178. There are 3 cherry lollipops and 7 grape lollipops in a bag. What is the probability of randomly choosing a grape lollipop out of the bag?

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

179. A freshman class includes students between the ages 12 and 16. The total number of students is broken down by age as shown in the table.

Age of Freshman  
Students

Student Age	Number of Students
12	3
13	7
14	44
15	38
16	6

What is the probability a freshman under the age of 14 will be first in line at the freshman banquet?

- A.  $\frac{3}{98}$
- B.  $\frac{1}{14}$
- C.  $\frac{5}{49}$
- D.  $\frac{27}{49}$

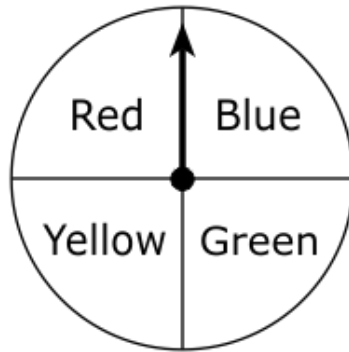
180. A bag contains 2 green balls, 3 yellow balls, and 1 red ball. Simone randomly selects a ball and replaces it. She repeats this process two more times. Each time she selects the red ball. What is the probability Simone will select the red ball on her fourth attempt?

- A.  $\frac{1}{6}$
- B.  $\frac{1}{4}$
- C.  $\frac{4}{6}$
- D.  $\frac{3}{4}$

181. A box contains 300 raffle tickets. Only 15 tickets are winning tickets. What is the probability the first ticket drawn at random from the box is a winning ticket?

- A.  $\frac{1}{19}$
- B.  $\frac{1}{20}$
- C.  $\frac{1}{30}$
- D.  $\frac{1}{300}$

182. Four people will spin the spinner below.



If the first 3 spins land on red, what is the probability the fourth spin will also land on red?

- A.  $\frac{1}{16}$
- B.  $\frac{1}{8}$
- C.  $\frac{1}{4}$
- D.  $\frac{1}{2}$



183. Mr. Hernandez asked his students to write down a Florida National Park on an index card for their choice of field trip destination. The table shows the students' choices.

Students' Field Trip Choices

Park	Number of Students
Biscayne National Park	5
Dry Tortugas National Park	6
Everglades National Park	9
Canaveral National Seashore	6
Gulf Island National Seashore	4

If the class trip will be determined by a random drawing of one index card, what is the probability that the class trip will be to the Everglades National Park?

- A.  $\frac{1}{9}$
- B.  $\frac{3}{10}$
- C.  $\frac{3}{7}$
- D.  $\frac{7}{10}$
184. Mary is making a necklace by alternating red, yellow, and green beads. In a bowl, she has 20 red beads, 20 yellow beads, and 20 green beads. If Mary needs a red bead, what is the probability of her picking one randomly?

- A.  $\frac{3}{4}$
- B.  $\frac{1}{2}$
- C.  $\frac{1}{3}$
- D.  $\frac{1}{6}$

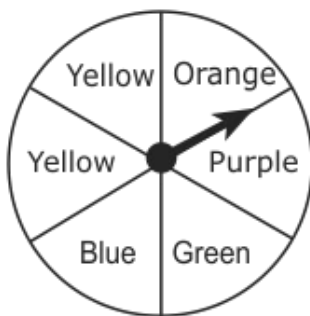
185. Ramiro had 20 bottled drinks in a container of ice. He has 6 teas, 4 waters, 8 sodas, and 2 juices. What is the probability that he will randomly select a water?

- A.  $\frac{1}{8}$
- B.  $\frac{1}{5}$
- C.  $\frac{1}{4}$
- D.  $\frac{1}{2}$

186. Gina has a bag that contains 5 orange candies, 2 grape candies, and 6 lemon candies. She will select one candy without looking. What is the probability that Gina will select an orange candy?

- A.  $\frac{5}{8}$
- B.  $\frac{5}{13}$
- C.  $\frac{1}{5}$
- D.  $\frac{1}{13}$

187. Ana will spin the spinner below.



What is the probability that Ana's spin will land on yellow?

- A.  $\frac{1}{6}$
- B.  $\frac{1}{4}$
- C.  $\frac{1}{3}$
- D.  $\frac{1}{2}$

188. Billy rolled a fair number cube that is numbered 1 through 6. What is the probability that he rolled a number less than 3?

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

189. Don writes each number below on a card, shuffles the cards, and then places them face down on a table.

24 19 55 67 90 36 62 76 93

Jana draws one card. What is the probability that the number on the card she draws is a multiple of 3?

- A.  $\frac{1}{4}$
- B.  $\frac{4}{9}$
- C.  $\frac{5}{9}$
- D.  $\frac{4}{5}$

190. A bag contains 10 black, 15 white, and 25 blue marbles. What is the probability of randomly selecting one marble that is not black?

- A.  $\frac{1}{10}$
- B.  $\frac{1}{5}$
- C.  $\frac{4}{5}$
- D.  $\frac{9}{10}$

191. A bag contains equally sized cards that are different colors. The numbers of each color are shown.

Numbers of Each Color

8 red	6 green
10 black	6 white

If one card is chosen at random, what is the probability of picking a green card?

- A.  $\frac{1}{5}$
- B.  $\frac{1}{4}$
- C.  $\frac{3}{5}$
- D.  $\frac{4}{5}$

192. A stack of 100 cards is numbered from 1 to 100 and thoroughly mixed. What is the probability of selecting a card that is a multiple of 5?

A.  $\frac{1}{2}$

B.  $\frac{1}{5}$

C.  $\frac{1}{10}$

D.  $\frac{1}{20}$

193. Jennifer rolled a fair number cube, numbered 1 through 6. What is the probability that she rolled a number other than 4?

A.  $\frac{1}{6}$

B.  $\frac{1}{5}$

C.  $\frac{1}{2}$

D.  $\frac{5}{6}$

194. Norma spins the spinner.



What is the probability that the arrow will land on a diamond?

A. 1:5

B. 2:6

C. 2:4

D. 6:2

195. There are 5 green paper clips, 6 blue paper clips, and 9 yellow paper clips in a container. If a paper clip is randomly selected, what is the probability that it will be green?

A. 0.20

B. 0.25

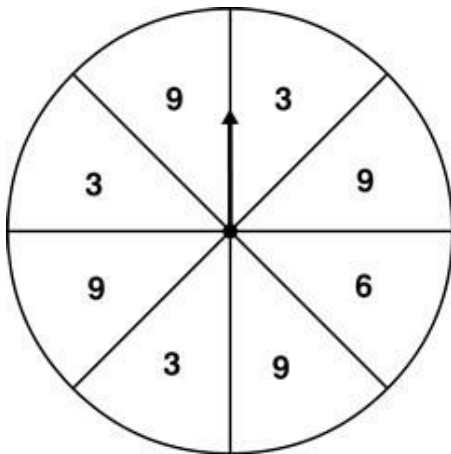
C. 0.30

D. 0.33

196. A puppy is equally likely to be born as a male or a female. If a mother dog has given birth to 2 female puppies and 3 male puppies so far, what is the probability that the next puppy born will be a male puppy?

- A. 1
- B.  $\frac{1}{2}$
- C.  $\frac{1}{3}$
- D. 0

197. The spinner is divided into equal sections. The arrow is spun one time.



What is the probability of the arrow landing on a 3?

- A.  $\frac{1}{8}$
- B.  $\frac{3}{8}$
- C.  $\frac{1}{2}$
- D.  $\frac{3}{4}$

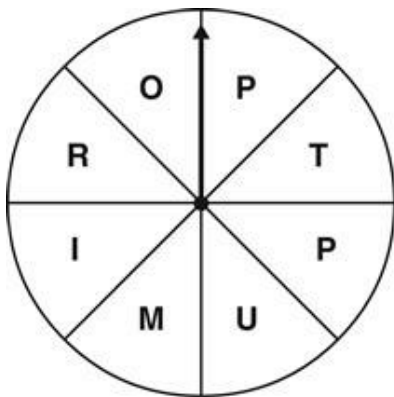
198. If an integer from 2 through 13 is chosen at random, what is the probability that the number chosen is prime?

- A.  $\frac{1}{3}$
- B.  $\frac{5}{12}$
- C.  $\frac{1}{2}$
- D.  $\frac{7}{12}$

199. A bag of 20 jelly beans contains 15 orange beans. If one jelly bean is drawn out of the bag without looking, what is the probability that it will be orange?

- A.  $\frac{1}{20}$
- B.  $\frac{5}{15}$
- C.  $\frac{5}{20}$
- D.  $\frac{15}{20}$

200. Carley made the spinner below.



What is the probability of spinning either a P or R on the first spin?

- A.  $\frac{1}{8}$
- B.  $\frac{3}{8}$
- C.  $\frac{1}{4}$
- D.  $\frac{3}{5}$

201. There are 10 boys and 5 girls in the debate club at West Middle School. The principal randomly selects one student from the debate club to represent the school in a competition. What is the probability that the selected student is a boy?

- A.  $\frac{1}{10}$
- B.  $\frac{1}{3}$
- C.  $\frac{1}{2}$
- D.  $\frac{2}{3}$

202. Mr. Lau ordered a bunch of balloons for his daughter's party. When he went to pick up the balloon order, one of the balloons came loose and floated away. If he started with 8 red balloons, 6 blue balloons, 4 green balloons, and 10 purple balloons, what is the probability that the balloon that floated away was red?

- A.  $\frac{1}{8}$
- B.  $\frac{2}{7}$
- C.  $\frac{2}{5}$
- D.  $\frac{1}{28}$

203. Ana has a bag filled with animal stickers. She has 5 dog stickers, 4 cat stickers, 3 bird stickers, 2 turtle stickers, and 1 dolphin sticker. What is the probability of drawing a bird sticker from the bag on the first draw without looking?

- A.  $\frac{1}{5}$
- B.  $\frac{1}{15}$
- C.  $\frac{3}{14}$
- D.  $\frac{4}{15}$

204. A movie theater shows different types of movies on 24 different screens. The types of movies currently being shown are listed below.

- 9 Comedy
- 6 Action
- 4 Drama
- 3 Horror
- 2 Family

What is the probability that a movie selected at random is not drama?

- A.  $\frac{1}{6}$
- B.  $\frac{1}{5}$
- C.  $\frac{4}{5}$
- D.  $\frac{5}{6}$

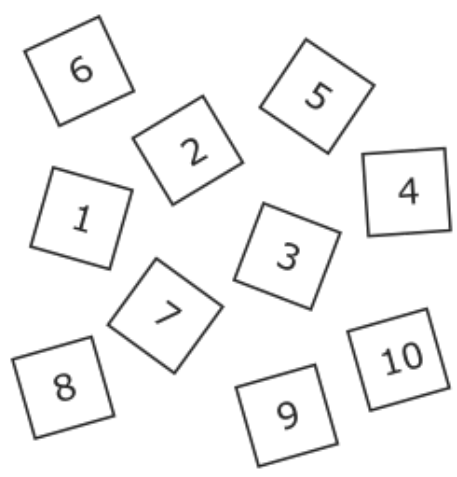
205. The sides of a number cube are numbered 1 through 6. If the cube is rolled, what is the probability it will land on a number greater than 4?

- A. 16.7%
- B. 33.3%
- C. 50.0%
- D. 66.7%

206. A movie theater manager took a survey of 50 customers. One of these customers will be randomly chosen to receive free tickets. Of the 25 customers surveyed who said they enjoy comedies, 15 are men. What is the probability that the customer who receives free tickets will be a woman who enjoys watching comedies?

- A.  $\frac{1}{5}$
- B.  $\frac{3}{10}$
- C.  $\frac{2}{5}$
- D.  $\frac{2}{3}$

207. Maria has a set of cards numbered 1 through 10.



If Maria picks a card without looking, what is the probability she will choose a number less than 5?

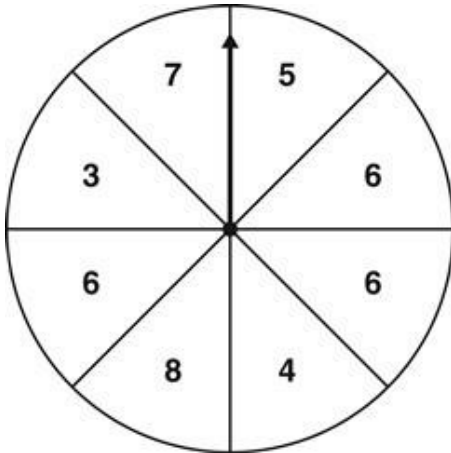
- A.  $\frac{1}{2}$
- B.  $\frac{2}{5}$
- C.  $\frac{1}{5}$
- D.  $\frac{1}{10}$



208. In a standard deck of 52 cards, there are 4 kings, 4 queens, and 4 jacks. What is the theoretical probability of randomly selecting one of these face cards from the deck?

- A.  $\frac{1}{4}$
- B.  $\frac{1}{2}$
- C.  $\frac{3}{13}$
- D.  $\frac{4}{13}$

209. Nancy is using the spinner below to choose the factors for a multiplication problem.



If Nancy spins the arrow one time, what is the probability that the arrow will land on a space labeled 6?

- A.  $\frac{1}{3}$
- B.  $\frac{3}{8}$
- C.  $\frac{1}{2}$
- D.  $\frac{3}{5}$

210. There are 10 boys and 8 girls in the chess club at West Middle School. The principal randomly selects one student from the chess club to represent the school in a competition. What is the probability that the selected student is a boy?

- A.  $\frac{1}{10}$
- B.  $\frac{4}{9}$
- C.  $\frac{5}{9}$
- D.  $\frac{4}{5}$

211. A jar contains 25 gold coins, 15 silver coins, and 10 copper coins which are all identical in shape and size. What is the probability that a coin selected at random from the jar is not silver?

- A.  $\frac{7}{10}$
- B.  $\frac{4}{7}$
- C.  $\frac{3}{7}$
- D.  $\frac{3}{10}$

212. A fair spinner is numbered 1 through 11. What is the probability that an even number will not be spun on the spinner?

- A.  $\frac{1}{11}$
- B.  $\frac{5}{11}$
- C.  $\frac{6}{11}$
- D.  $\frac{5}{6}$

213. In a deck of 54 cards numbered 1 through 54, what is the probability of drawing a card with 14 on it?

- A.  $\frac{1}{14}$
- B.  $\frac{1}{27}$
- C.  $\frac{1}{40}$
- D.  $\frac{1}{54}$

214. Edward will flip a coin 9 times. What is the probability Edward's 10th flip will land on heads?

- A.  $\frac{1}{10}$
- B.  $\frac{1}{9}$
- C.  $\frac{1}{2}$
- D. 1

215. Mrs. Hepp bought a bag of apples containing 4 yellow apples, 5 red apples, and 3 green apples. She is going to reach into the bag and select one apple without looking. What is the probability that she will select a green apple?
- A.  $\frac{1}{12}$
  - B.  $\frac{1}{4}$
  - C.  $\frac{1}{3}$
  - D.  $\frac{5}{12}$

216. Ms. Yardi assigned 7 students to present reports on various states, as listed below.

State Report Assignments

Student	State
Isabel	California
Marco	Vermont
Nina	Florida
Olivia	Texas
Shawna	California
Tim	Maine
Willie	Florida

Ms. Yardi will place the names of the students into a jar and draw one name without looking to determine who will present a report first. What is the probability that the student whose name is drawn will report on California or Florida?

- A.  $\frac{1}{4}$
  - B.  $\frac{3}{7}$
  - C.  $\frac{1}{2}$
  - D.  $\frac{4}{7}$
217. A jar contains 8 blue marbles and 4 green marbles. If one marble is drawn at random, what is the probability that the marble drawn will be blue?
- A.  $\frac{1}{12}$
  - B.  $\frac{1}{8}$
  - C.  $\frac{1}{3}$
  - D.  $\frac{2}{3}$

218. Latoya has 60 CDs in her collection.

- 40 are Pop
- 12 are Country
- 6 are Rock
- 2 are Jazz

If she randomly selects a CD from her collection, what is the probability that she will not select a Country CD?

- A.  $\frac{1}{5}$
- B.  $\frac{1}{4}$
- C.  $\frac{1}{2}$
- D.  $\frac{4}{5}$

219. Grace has a box of animal crackers. The box has 6 giraffe crackers, 8 monkey crackers, 15 zebra crackers, 14 elephant crackers, and 7 hippopotamus crackers. If Grace picks one cracker from the box at random, what is the probability that she will pick a zebra cracker?

- A.  $\frac{1}{5}$
- B.  $\frac{1}{15}$
- C.  $\frac{3}{7}$
- D.  $\frac{3}{10}$

220. One coin is randomly selected from a bag containing 8 dimes, 10 pennies, and 2 nickels. Which conclusion about the outcome is correct?

- A. The probability of selecting a penny is greater than the probability of selecting a dime.
- B. The probability of selecting a dime is the same as the probability of selecting a penny.
- C. The probability of selecting a nickel is the greatest.
- D. The probability of selecting a dime is the least.

221. Eight SUVs, 6 cars, and 4 trucks were parked in a lot. What is the probability that a car or truck will be the first to exit the lot?

- A.  $\frac{1}{9}$
- B.  $\frac{1}{5}$
- C.  $\frac{5}{9}$
- D.  $\frac{5}{4}$

222. Justin sees 4 yellow butterflies, 2 orange butterflies, and 3 white butterflies in his garden. One of the butterflies lands on his arm. What is the probability that the butterfly is white?

- A.  $\frac{1}{2}$
- B.  $\frac{1}{3}$
- C.  $\frac{1}{6}$
- D.  $\frac{1}{9}$

223. Julia's coin purse has 7 quarters and 3 nickels. What is the probability that she will pick a quarter at random?

- A. .03
- B. .07
- C. .30
- D. .70

224. A store manager receives a batch of 48 electric shavers, of which 3 are damaged. If the order in which the shavers are unpacked is random, what is the probability that the first unpacked shaver is not damaged?

- A.  $\frac{1}{51}$
- B.  $\frac{1}{16}$
- C.  $\frac{15}{16}$
- D.  $\frac{50}{51}$

225. A company sells pencils that are painted blue or green. A package of three pencils from this company has a random mix of these pencils. A person used a simulation to determine the probability that exactly 2 of the 3 pencils in a package are painted green. A coin was used for the simulation, where the side labeled with a "B" represented blue, and the side labeled with a "G" represented green. The results of 30 trials of the simulation are shown below.

GBG	BBG	BGG	BBB	GBB	GGG
BBB	BGB	BBG	BGG	BGG	BBG
GBB	GGG	BBG	BBB	BGB	GGB
BBG	GGB	BBG	GGG	GGG	GBB
GGB	BBB	GGB	BBG	GGG	BGG

Based on the simulation, what is the probability that exactly 2 of the 3 pencils in a package are painted green?

- A.  $\frac{9}{30}$
- B.  $\frac{12}{30}$
- C.  $\frac{14}{30}$
- D.  $\frac{16}{30}$

226. There are 4 yellow cards in a deck of 52 cards. What is the probability of drawing a yellow card?

A.  $\frac{1}{52}$

B.  $\frac{1}{48}$

C.  $\frac{1}{26}$

D.  $\frac{1}{13}$

227. Natasha has 4 nickels, 2 dimes, and 6 quarters in her pocket. What is the theoretical probability that she will randomly select a quarter from her pocket?

A.  $\frac{1}{2}$

B.  $\frac{1}{3}$

C.  $\frac{1}{4}$

D.  $\frac{1}{6}$

228. A box holds a mix of good and bad light bulbs. There were 8 good bulbs and 4 bad bulbs. What is the likelihood that a good bulb is selected on one try?

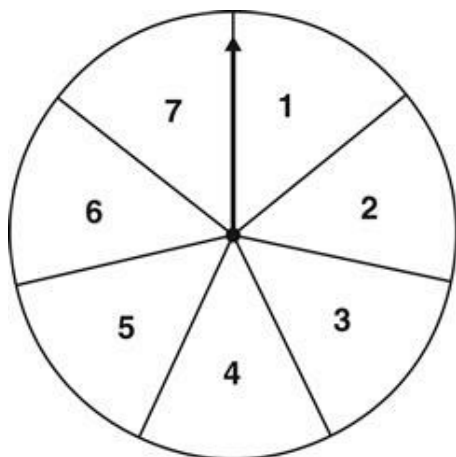
A.  $\frac{1}{12}$

B.  $\frac{1}{4}$

C.  $\frac{2}{3}$

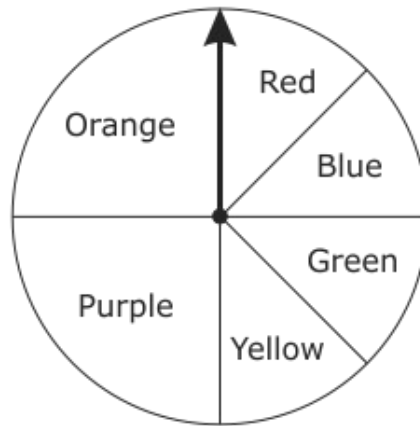
D.  $\frac{1}{2}$

229. In one spin of this spinner, what is the probability that the arrow will stop on an even number?



- A.  $\frac{3}{7}$
- B.  $\frac{4}{7}$
- C.  $\frac{3}{4}$
- D.  $\frac{7}{3}$

230. James spins the spinner below one time.



What is the probability of the spinner landing on Red?

A.  $\frac{1}{4}$

B.  $\frac{1}{6}$

C.  $\frac{1}{8}$

231. On a fair circular spinner,  $\frac{1}{2}$  of the circle is red,  $\frac{1}{4}$  is blue,  $\frac{1}{6}$  is yellow, and  $\frac{1}{12}$  is green. What is the probability that the outcome of one random spin is not yellow?

A.  $\frac{1}{6}$

B.  $\frac{1}{2}$

C.  $\frac{3}{4}$

D.  $\frac{5}{6}$

232. Tim has 5 yellow and 10 blue marbles in a bag. What is the probability of choosing a yellow marble from the bag?

A.  $\frac{1}{2}$

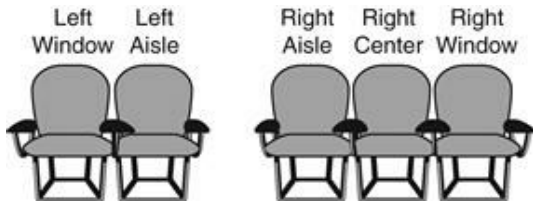
B.  $\frac{1}{3}$

C.  $\frac{1}{15}$

D.  $\frac{1}{50}$



233. On a Super 80 airplane, there are five possible seat positions, as shown in the diagram.



What is the probability that a random seat assignment will be a window seat or an aisle seat?

- A.  $\frac{1}{5}$
- B.  $\frac{2}{5}$
- C.  $\frac{3}{5}$
- D.  $\frac{4}{5}$

234. Tanya tossed a fair two-sided coin into the air. What is the probability that the coin will land with the head facing up?


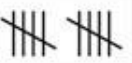
- A.  $\frac{1}{2}$
- B.  $\frac{1}{3}$
- C.  $\frac{1}{4}$
- D.  $\frac{1}{5}$

235. Mark has a key ring with 10 similar keys. There are 3 gym locker keys, 2 car keys, 1 door key, and 4 toolbox keys. If Mark selects one key without looking, what is the probability he selects a car key or door key?

- A. 10%
- B. 20%
- C. 30%
- D. 40%

236. Debbie flipped a two-sided coin 15 times to see how many times heads would show. Her results are in the table below.

**Coin Results**

Heads	Tails
	

What fraction represents the proportion of flips that showed a head?

- A.  $\frac{1}{2}$
- B.  $\frac{1}{3}$
- C.  $\frac{1}{10}$
- D.  $\frac{1}{15}$

237. A box contains 44 black, 36 white, and 20 blue socks. If one sock is selected at random, what is the probability that the sock is black?

- A.  $\frac{1}{44}$
- B.  $\frac{44}{100}$
- C.  $\frac{56}{100}$
- D.  $\frac{44}{56}$

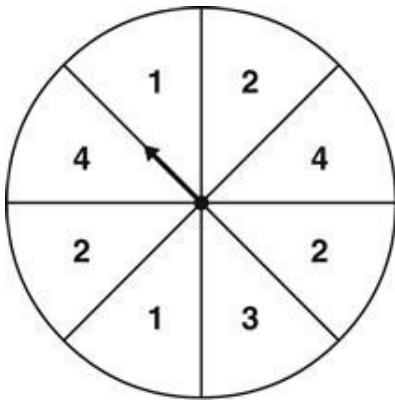
238. The table shows the equally likely outcomes in a science experiment.

A1	A3	A5	A7	A9
B1	B3	B5	B7	B9

Which probability statement is true?

- A. There is a  $\frac{1}{2}$  probability that the outcome will be A3.
- B. There is a  $\frac{1}{3}$  probability that the outcome will be A3.
- C. There is a  $\frac{1}{5}$  probability that the outcome will be A3.
- D. There is a  $\frac{1}{10}$  probability that the outcome will be A3.

239. If all the areas on the spinner are the same size, what is the probability the spinner will land on a 3 or 4?



- A.  $\frac{1}{3}$
- B.  $\frac{1}{4}$
- C.  $\frac{3}{4}$
- D.  $\frac{3}{8}$

240. Jacob has 4 blue pens, 3 red pens, 3 green pens, and 5 black pens in his desk. What is the probability of Jacob selecting a black pen without looking?

- A.  $\frac{1}{3}$
- B.  $\frac{2}{3}$
- C.  $\frac{3}{4}$
- D.  $\frac{5}{6}$

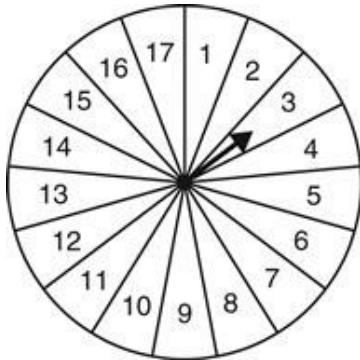
241. Mr. Stuart has 12 girls and 10 boys in his math class. He writes each of their names on a separate sheet of paper and puts all of the names in a bag. He selects one name without looking. What is the probability that Mr. Stuart will select a boy's name?

- A.  $\frac{1}{22}$
- B.  $\frac{1}{10}$
- C.  $\frac{5}{11}$
- D.  $\frac{5}{6}$

242. The probability of randomly drawing a red ball from a bag without looking is  $\frac{3}{16}$ . What is the probability of randomly drawing a ball that is not red?

- A.  $\frac{13}{16}$
- B.  $\frac{10}{16}$
- C.  $\frac{9}{16}$
- D.  $\frac{3}{16}$

243. What is the probability that an odd number will be spun on a fair spinner that is numbered 1 through 17?

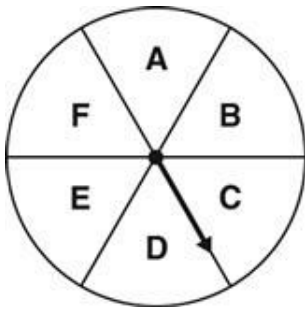


- A.  $\frac{1}{17}$
- B.  $\frac{9}{17}$
- C.  $\frac{1}{2}$
- D.  $\frac{8}{9}$

244. A stone was placed under 1 of 3 overturned cups so that you could not tell which contained the stone. If you lifted 2 of the cups what is the probability you would find the stone?

- A.  $\frac{1}{4}$
- B.  $\frac{1}{3}$
- C.  $\frac{1}{2}$
- D.  $\frac{2}{3}$

245. Ben is playing a board game that uses the spinner shown below.



If Ben spins once, what is the probability that the spinner will land on Space C?

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

246. Carlos has six cards in a bag, numbered 2, 2, 3, 6, 8, and 9. What is the probability Carlos will randomly select a 2 or a 9?

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

247. Mr. Ong has 8 yellow pencils, 4 green pencils, and 3 orange pencils in a box. He will select one pencil without looking. What is the probability that he will select an orange pencil?

- A.  $\frac{1}{15}$
- B.  $\frac{1}{5}$
- C.  $\frac{1}{4}$
- D.  $\frac{1}{3}$

248. A bag of marbles contains 5 red, 10 blue, 3 yellow and 7 green marbles. Lisa chooses one marble at random from the bag. What is the probability of not choosing a red marble?
- A.  $\frac{1}{5}$   
B.  $\frac{2}{5}$   
C.  $\frac{3}{5}$   
D.  $\frac{4}{5}$
249. The local gift shop has a drawing one day a week for a \$75 gift certificate. There are 100 pieces of paper in the box. Tiffany put her name on 5 of the pieces of paper. What is the probability Tiffany's name will be drawn out of the box?
- A.  $\frac{5}{100}$   
B.  $\frac{25}{100}$   
C.  $\frac{75}{100}$   
D.  $\frac{95}{100}$
250. Jack will roll two number cubes labeled 1 to 6. What is the probability that Jack will roll a sum greater than 5?
- A.  $\frac{2}{9}$   
B.  $\frac{5}{18}$   
C.  $\frac{13}{18}$   
D.  $\frac{7}{9}$