

Numeration, Patterns, and Relationships

Read each question. Then mark your answer on the sheet.

1. What is the value of the 2 in 258,364?

- A 20
- B 200
- C 2,000
- D 200,000

2. In standard form

$5,000,000 + 20,000 + 400 + 8$
is equal to which number?

- A 5,200,408
- B 5,020,408
- C 520,408
- D 502,408

3. Which is the word name for 8,700,012?

- A Eight thousand, seven hundred twelve
- B Eight million, seven hundred twelve
- C Eight million, seventy thousand, twelve
- D Eight million, seven hundred thousand, twelve

The table shows the sizes of four countries. Use the table for Questions 4 and 5.

Country	Area in Square Miles
Canada	3,851,800
China	3,705,400
Russia	6,592,800
United States	3,717,796

4. Which of the four countries is the smallest?

- A Canada
- B China
- C Russia
- D United States

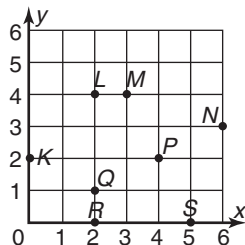
5. What is the area of Russia rounded to the nearest hundred thousand square miles?

- A 6,590,000
- B 6,500,000
- C 6,600,000
- D 7,000,000

Numeration, Patterns, and Relationships (continued)

Read each question. Then mark your answer on the sheet.

6. Which ordered pair names point *M*?



- A (6, 3) C (4, 1)
 B (4, 3) D (3, 4)

7. Find the rule for this table.

<i>n</i>	?
30	20
40	30
50	40
60	50
70	60

- A $n + 10$
 B $n - 10$
 C $10 \times n$
 D $n \div 10$

8. Given the equation $y - 9 = 54$, which of the following is true?

- A $(y - 9) \div 9 = 54 \times 9$
 B $y - 9 + 9 = 54 - 9$
 C $y - 9 + 9 = 54 + 9$
 D $(y - 9) \times 9 = 54 \div 9$

9. In $6m = 24$, what number is represented by *m*?

- A $m = 3$
 B $m = 4$
 C $m = 18$
 D $m = 30$

10. In $y - 4 = 12$, what number is represented by *y*?

- A $y = 3$
 B $y = 8$
 C $y = 16$
 D $y = 48$

11. Which is the missing number?

<i>n</i>	$2 \times n$
2	4
3	6
4	8
5	?

- A 2
 B 9
 C 10
 D 12

Operations with Whole Numbers

Read each question. Then mark your answer on the sheet.

12. Victor is adding $358 + 198$ by using compensation. He adds $358 + 200 = 558$ first. Which of the following should he do next?

A Add $558 + 2$.
B Subtract $558 - 2$.
C Add $558 + 1$.
D Subtract $558 - 1$.

13. The library checked out 3,559 books on Monday and 3,328 books on Tuesday. About how many books did the library check out on these two days?

A About 8,000 books
B About 7,000 books
C About 6,000 books
D About 1,000 books

14.
$$\begin{array}{r} 34,675 \\ + 15,792 \\ \hline \end{array}$$

A 49,367
B 49,467
C 50,367
D 50,467

15. Thursday night 39,219 people bought tickets to the baseball game. Friday night 63,516 people bought tickets to the game. About how many more tickets were sold on Friday night?

A About 20,000 tickets
B About 30,000 tickets
C About 90,000 tickets
D About 100,000 tickets

16.
$$\begin{array}{r} 80,700 \\ - 14,632 \\ \hline \end{array}$$

A 65,068
B 66,068
C 66,078
D 76,178

17. If you know that $4 \times 9 = 36$, which number sentence would help you to find the answer to 5×9 ?

A $36 + 4 = 40$
B $36 + 9 = 45$
C $36 + 8 = 44$
D $36 + 9 = 44$

Operations with Whole Numbers (continued)

Read each question. Then mark your answer on the sheet.

18. Marta bought three dozen cookies at the bake sale. How many cookies did she buy?
There are 12 cookies in a dozen.

A 3 cookies
B 30 cookies
C 36 cookies
D 48 cookies

19. $7\overline{)49}$

A 8 C 5
B 7 D 6

20. $15 \div 2 =$

A 8 R2
B 7 R1
C 6 R1
D 7 R5

-
21. Nicole bought 8 bags of beads for an art project. Each bag contains 68 beads. About how many beads does she have in all?

A About 70 beads
B About 80 beads
C About 480 beads
D About 560 beads

22. Last year 272 people ran in the marathon. This year twice as many people ran. How many people ran in the marathon this year?

A 544 people
B 444 people
C 454 people
D 244 people

-
23. A builder has 236 bricks. She wants to make 8 stacks of bricks about the same height. About how many bricks should be in each stack?

A About 8 bricks
B About 10 bricks
C About 20 bricks
D About 30 bricks

24. $3\overline{)89}$

A 29 R2
B 28 R1
C 26 R1
D 23

Operations with Whole Numbers (continued)

Read each question. Then mark your answer on the sheet.

25. A grocer ordered 6 frozen turkeys. The turkeys weighed a total of 84 pounds. If each frozen turkey weighed the same number of pounds, how much did each turkey weigh?

- A 54 pounds C 14 pounds
B 16 pounds D 13 pounds

26. A nursery owner has 864 tomato sprouts. If he puts 3 sprouts in each planter, how many planters can he fill?

- A 222 planters
B 236 planters
C 268 planters
D 288 planters

27. Karl and Kendra have 36 chairs to arrange in a rectangular array. Which of the following is NOT a possible array they can use?

- A 3 by 12
B 4 by 6
C 4 by 9
D 6 by 6

28. Which is a prime number?

- A 1 C 27
B 17 D 39

29. Which list shows all of the factors of 50?

- A 1, 2, 5, 10, 25, 50
B 1, 2, 5, 10, 50
C 1, 2, 4, 5, 10, 25, 50
D 1, 2, 5, 10, 15, 25, 100

30. Each student in Mr. Picard's class brought in 175 soup can labels to trade in for a computer. There are 23 students in the class. How many labels did the class collect in all?

- A 875 labels
B 3,025 labels
C 4,025 labels
D 4,125 labels

31.
$$\begin{array}{r} 46 \\ \times 32 \\ \hline \end{array}$$

- A 1,472
B 1,362
C 872
D 230

32. What is $30 \times 8,000$?

- A 2,400
B 24,000
C 240,000
D 2,400,000

Fractions, Decimals, and Percents

Read each question. Then mark your answer on the sheet.

33. Which group has exactly $\frac{6}{9}$ white circles?

- | | | | |
|----------|--|----------|--|
| A | | C | |
| B | | D | |

34. Ryan bought a pound of cheese. He sliced the cheese into 8 equal pieces. How much does each slice weigh?

- A $\frac{1}{10}$ pound
- B $\frac{1}{8}$ pound
- C $\frac{1}{2}$ pound
- D 1 pound

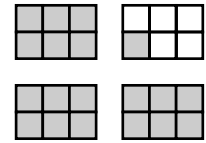
35. Which fraction is equivalent to $\frac{2}{5}$?

- | | | | |
|----------|----------------|----------|----------------|
| A | $\frac{6}{15}$ | C | $\frac{6}{10}$ |
| B | $\frac{9}{15}$ | D | $\frac{7}{10}$ |

36. What is $\frac{14}{18}$ in simplest form?

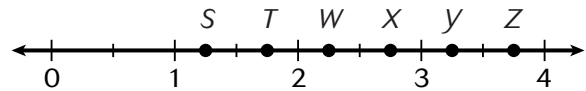
- | | | | |
|----------|---------------|----------|---------------|
| A | $\frac{7}{8}$ | C | $\frac{2}{3}$ |
| B | $\frac{7}{9}$ | D | $\frac{8}{7}$ |

37. Which mixed number describes the shaded areas?



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

38. Which letter is at $2\frac{1}{4}$ on the number line?



- | | | | |
|----------|---|----------|---|
| A | T | C | V |
| B | U | D | W |

39. A carpenter has boards that are $\frac{3}{4}$ yard, $\frac{1}{2}$ yard, $\frac{1}{3}$ yard, and $\frac{7}{8}$ yard long. Which lists the lengths of the boards from greatest to least?

- A $\frac{3}{4}, \frac{7}{8}, \frac{1}{2}, \frac{1}{3}$
- B $\frac{3}{4}, \frac{7}{8}, \frac{1}{3}, \frac{1}{2}$
- C $\frac{7}{8}, \frac{1}{2}, \frac{3}{4}, \frac{1}{3}$
- D $\frac{7}{8}, \frac{3}{4}, \frac{1}{2}, \frac{1}{3}$

Fractions, Decimals, and Percents (continued)

Read each question. Then mark your answer on the sheet.

40. Mario spent \$18.78 at the store. He gave the clerk \$20. Which set of bills and coins could be his change?

A 2 pennies, 2 dimes, 1 dollar
 B 3 pennies, 1 quarter, 1 dollar
 C 2 pennies, 2 dimes, 2 dollars
 D 3 pennies, 1 quarter, 2 dollars

41. \$3.62 is the same as

A 3 dollars + 6 dimes + 2 pennies
 B 3 dollars + 2 dimes + 6 pennies
 C 6 dollars + 2 dimes + 3 pennies
 D 2 dollars + 6 dimes + 3 pennies

42. What is the place value of 2 in 35.24?

A Tens
 B Ones
 C Tenths
 D Hundredths

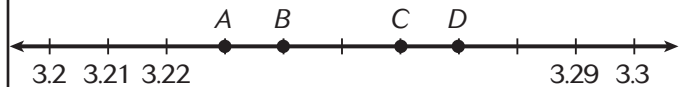
43. Which set of decimals is ordered from least to greatest?

A 2.7, 2.72, 2.68, 2.65
 B 2.68, 2.65, 2.7, 2.72
 C 2.65, 2.68, 2.72, 2.7
 D 2.65, 2.68, 2.7, 2.72

44. Which decimal is equal to $\frac{7}{100}$?

A 0.07
 B 0.70
 C 0.7100
 D 7.100

45. Which point is located at 3.27?

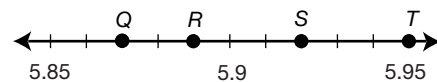


A Point A C Point C
 B Point B D Point D

46. Which shows 27.49 rounded to the nearest whole number?

A 27
 B 27.4
 C 27.5
 D 28

47. Which mixed number is located at Point S?



A $5\frac{7}{10}$
 B $5\frac{9}{10}$
 C $5\frac{92}{100}$
 D $6\frac{2}{10}$

Fractions, Decimals, and Percents (continued)

Read each question. Then mark your answer on the sheet.

48. What is $\frac{5}{6} - \frac{2}{3}$?

A $\frac{3}{3}$

B $\frac{3}{6}$

C $\frac{1}{6}$

D $\frac{2}{18}$

49. On Monday, Lacy ran $\frac{2}{5}$ mile. On Tuesday, she ran $\frac{3}{10}$ mile. How far did she run all together?

A $\frac{12}{15}$ mile

B $\frac{7}{10}$ mile

C $\frac{5}{10}$ mile

D $\frac{4}{10}$ mile

50. Mateo is 51.25 inches tall. His brother is 37.75 inches tall. About how much taller is Mateo than his brother?

A About 10 inches

B About 20 inches

C About 80 inches

D About 90 inches

51. What is $3.7 + 4.51$?

A 4.88

C 48.8

B 8.21

D 82.1

52. Misty bought 2.35 pounds of apples and 1.84 pounds of oranges. How many more pounds of apples than oranges did she buy?

A 0.41 pound

B 0.51 pound

C 1.41 pounds

D 1.51 pounds

53. Mary's watering can holds 3.4 liters of liquid plant food. She filled the can three times when she watered yesterday. How many liters of liquid plant food did she use?

A 9.2 liters

C 92 liters

B 10.2 liters

D 102 liters

54. Mrs. Kuhn bought 8.75 yards of material. She needed to divide this evenly among 7 children. How many yards of material did each child get?

A 1.05 yards

C 1.5 yards

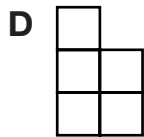
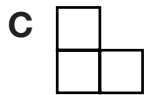
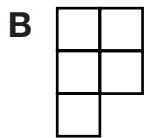
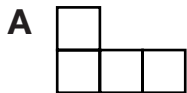
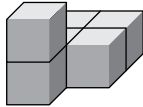
B 1.25 yards

D 1.75 yards

Measurement and Geometry

Read each question. Then mark your answer on the sheet.

55. Which is a side view of the figure?

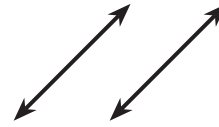


56. Which solid will the net form?



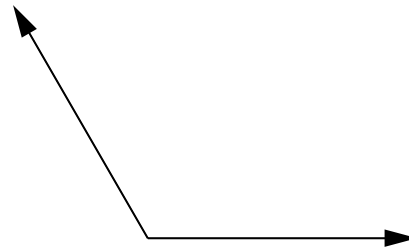
- A Square pyramid
- B Rectangular prism
- C Cone
- D Cube

57. Describe the pair of lines.



- A Perpendicular lines
- B Parallel lines
- C Intersecting lines
- D Rays

58. What type of angle is shown?



- A Obtuse
- B Acute
- C Right
- D Straight

59. Which triangle has an angle with a measure greater than 90 degrees?

- A Right triangle
- B Acute triangle
- C Equilateral triangle
- D Obtuse triangle

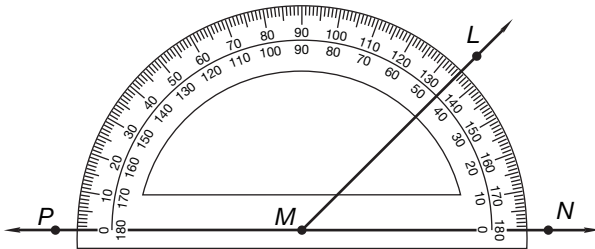
Measurement and Geometry (continued)

Read each question. Then mark your answer on the sheet.

60. Which quadrilateral has only one pair of parallel sides?

- A Rectangle
- B Square
- C Trapezoid
- D Rhombus

61. What is the measure of angle LMN?



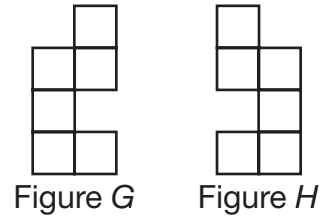
- A 45°
- B 55°
- C 125°
- D 135°

62. Which angle measure and turn describes the rotation?



- A 90° or $\frac{1}{4}$ turn
- B 180° or $\frac{1}{2}$ turn
- C 270° or $\frac{3}{4}$ turn
- D 360° or full turn

63. Which transformation can be used to show the two figures are congruent?



- A Rotation
- B Reflection
- C Translation
- D Reflection and translation

64. Which figure has rotational symmetry?

- A
- B
- C
- D

Measurement and Geometry (continued)

Read each question. Then mark your answer on the sheet.

65. Which letter has NO line of symmetry?

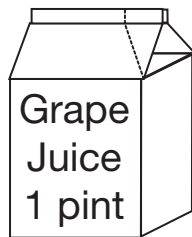
- A The letter H
- B The letter I
- C The letter L
- D The letter D

66. Which is the best estimate for the length of a child's wagon?

- A 1 inch
- B 1 yard
- C 1 mile
- D 10 yards

67. If you buy 2 containers of grape juice, how many cups of grape juice will you have?

- A 1 cup
- B 4 cups
- C 2 cups
- D 8 cups



68. Which is the best estimate for the mass of a cell phone?

- A 100 grams
- B 1 gram
- C 100 kilograms
- D 1 kilogram

69. Which length is greatest?

- A 200 centimeters
- B 8 decimeters
- C 2,000 meters
- D 1 kilometer

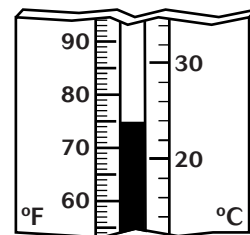
70. Luis's watch shows 3:32. His swim practice starts in 35 minutes. What time does swim practice start?

- A 3:47
- B 4:07
- C 4:17
- D 4:47

71. 52 weeks = 1 year
1 year 6 weeks = ■ days

- A 406
- B 371
- C 314
- D 58

72. What is the temperature after a decrease of 12°F from the temperature shown?

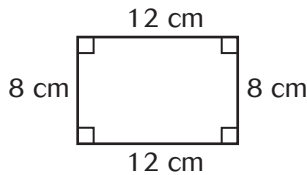


- A 63°F
- B 60°F
- C 55°F
- D 12°F

Measurement and Geometry (continued)

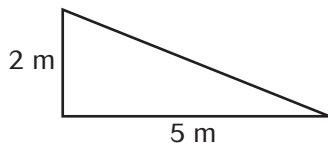
Read each question. Then mark your answer on the sheet.

- 73. Find the perimeter of the rectangle. You can use the formula $P = 2\ell + 2w$.**



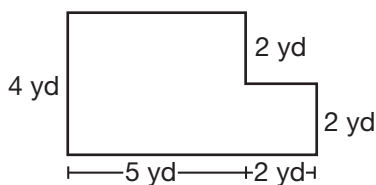
- A** 4 cm **C** 28 cm
B 20 cm **D** 40 cm

- 74. What is the area of the triangle?**



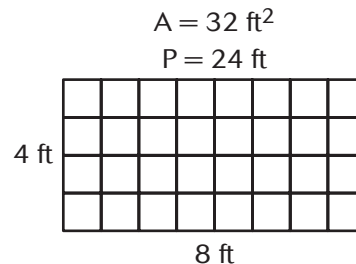
- A** 5 square meters
B 7 square meters
C 10 square meters
D 20 square meters

- 75. Jack is installing new carpet in the family room shown. Which is the area of the family room?**



- A** 15 square yd **C** 24 square yd
B 22 square yd **D** 28 square yd

- Use the figure below to answer Questions 76 and 77.**



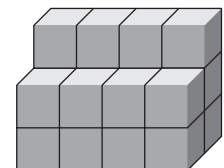
- 76. Which are the dimensions of another rectangle with the same area as the given rectangle?**

- A** $16 \text{ ft} \times 2 \text{ ft}$
B $6 \text{ ft} \times 4 \text{ ft}$
C $12 \text{ ft} \times 2 \text{ ft}$
D $16 \text{ ft} \times 16 \text{ ft}$

- 77. Which are the dimensions of a rectangle with the same perimeter as the given rectangle?**

- A** $6 \text{ ft} \times 4 \text{ ft}$
B $12 \text{ ft} \times 12 \text{ ft}$
C $9 \text{ ft} \times 3 \text{ ft}$
D $8 \text{ ft} \times 3 \text{ ft}$

- 78. What is the volume of the figure?**

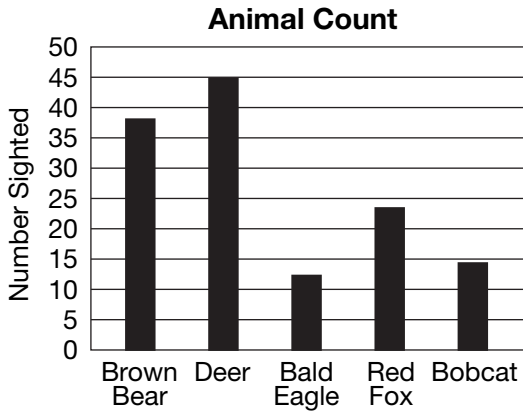


- A** 12 cubic units
B 20 cubic units
C 24 cubic units
D 28 cubic units

Data Analysis and Probability

Read each question. Then mark your answer on the sheet.

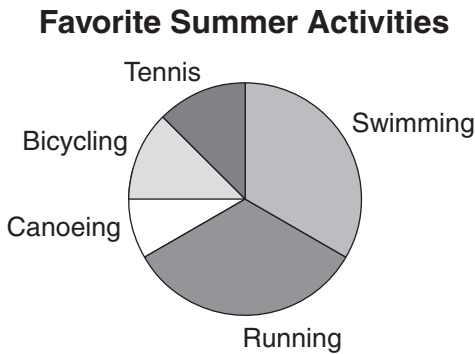
79. A scientist at a national park counted the animals she saw. The scientist made the bar graph shown below.



Which was sighted more than 15 times, but less than 35 times?

- A Deer C Bald Eagle
B Bobcat D Red Fox

80. What fraction of the students surveyed preferred swimming?



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

Use the stem-and-leaf plot for Questions 81 and 82.

Points Earned	
Stem	Leaves
2	5, 8, 8, 8, 9
3	0, 1, 5, 6, 8, 9

81. What is the range of points earned?

- A 39 C 14
B 29 D 5

82. What is the mode?

- A 28 C 35
B 30 D 39

83. What is the mean of this set of data?

7, 2, 4, 7, 6, 7, 2

- A 5 C 6
B 5.5 D 7

84. A bag contains 5 red marbles, 3 blue marbles, and 2 purple marbles. What is the probability of getting a blue marble if you reach in and take one without looking?

- A $\frac{3}{10}$ C $\frac{1}{2}$
B $\frac{3}{7}$ D $\frac{3}{5}$

Problem Solving

Read each question. Then mark your answer on the sheet.

85. Lena caught 8 fish and Sven caught 2 fish. The fish weighed about 2 pounds each. What hidden question can you use to find how much the fish weighed in all?

- A What is the weight of all the fish?
- B How many more fish did Lena catch than Sven?
- C What kind of fish did they catch?
- D How many fish did they catch altogether?

86. Joan is looking for an office on the second floor of a medical building. The first office is numbered 203, the next office is numbered 213, and the third office is numbered 223. If the pattern continues, what is the number of the sixth office?

- A 233
- B 243
- C 253
- D 263

87. Ida collects 139 shells and gives 21 of them to Joe. Which number sentence shows the number of shells Ida has?

- A $139 + 21 = n$
- B $139 - 21 = n$
- C $139 \div 21 = n$
- D $139 \times 21 = n$

88. Samuel's mom bought a total of 24 bagels and muffins at the bakery. She bought three times as many bagels as muffins. How many bagels did she buy?

- A 6 bagels
- B 12 bagels
- C 16 bagels
- D 18 bagels

89. Mr. Tyson needs to catch the train at 7:05 A.M. He needs 45 minutes to get ready and eat breakfast and 20 minutes to walk to the station. What is the latest time he can wake up and arrive at the station in time to catch the train?

- A 5:45 A.M.
- B 6:00 A.M.
- C 6:15 A.M.
- D 6:20 A.M.

90. Which statement is true about the figure shown?



- A It is a pentagon.
- B It is a triangle.
- C It has two pairs of parallel sides.
- D It has no parallel sides.