Name _____

Numeration, Patterns, and Relationships

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

1. What is the value of the 6 in the number 4,526,332,871?

A 6 billion

B 600 thousand

C 6 hundred thousand

D 6 million

2. Which list shows these numbers ordered from least to greatest?

A 5,687,423; 5,867,423; 6,587,423; 6,857,423

B 5,867,423; 5,687,423; 6,587,423; 6,857,423

C 6,857,423; 5,687,423; 5,867,423; 6,587,423

D 6,587,423; 6,857,423; 5,687,423; 5,867,423

3. A company manufactured 2,487,200 trinkets last year. What is the number of trinkets they made rounded to the nearest hundred thousand?

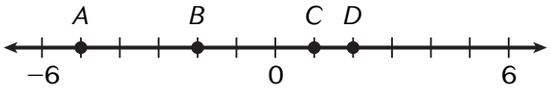
A 2,500,000

B 2,490,000

C 2,400,000

D 2,000,000

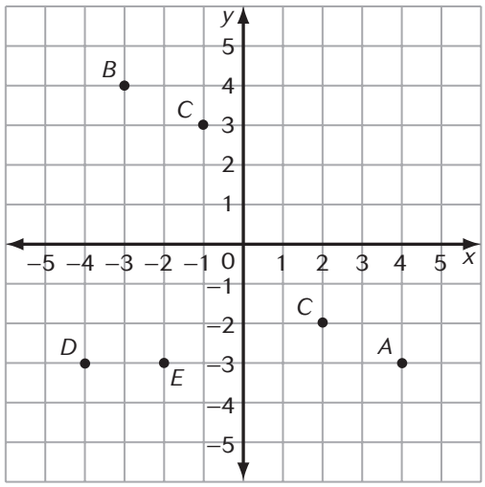
4. Which number shows the location of point *B*?



A −3 **C** −1

B −2 **D** 2

5. Which ordered pair names point *A*?



A (−4, −3)

B (4, −3)

C (−3, 4)

D (−2, −3)

6. What is the distance between points at (2, 3) and (5, 3)?

A 4 units **C** 2 units

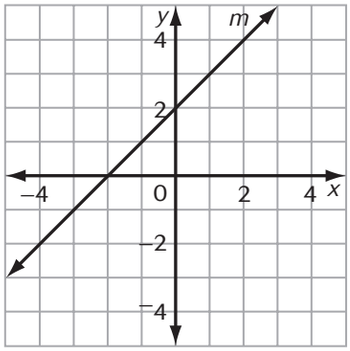
B 3 units **D** 1 unit

Name _____

Numeration, Patterns, and Relationships (continued)

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

7. Which ordered pair is located on line *m*?



A (−3, −1)

B (−1, −3)

C (2, −4)

D (−4, 2)

8. Which equation matches the table?

m	*n*
5	20
8	32
4	16
6	24

A $n = 4m$

B $n = 5m$

C $n = m + 15$

D $n = m + 12$

9. Evaluate (24 ÷ 6) × (3 + 2).

A 20

B 15

C 14

D 12

10. Steven walked up 6 steps, then he walked up some more steps. Which expression shows the number of steps Steven walked?

A $6 \div x$

B $6x$

C $x - 6$

D $6 + x$

11. If $n = 13$, what is $302 - n$?

A 269

B 279

C 289

D 299

12. Find the value of *n*.

$$\frac{n}{9} = 5$$

A $n = 4$

B $n = 14$

C $n = 45$

D $n = 54$

13. Find the value of *n*.

$8(3 + 5) = (8 \times 3) + (8 \times n)$

A $n = 3$

B $n = 5$

C $n = 8$

D $n = 40$

14. What value of *c* makes the equation true?

$(8 \times 2) \times 5 = (2 \times c) \times 5$

A $c = 8$

B $c = 6$

C $c = 5$

D $c = 2$

Name _____

Operations with Whole Numbers

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

15. What is 56,982 − 11,891?

A 68,873
B 45,111
C 45,091
D 44,181

16. What is 39,612 + 13,468?

A 26,144
B 52,180
C 53,070
D 53,080

17. The library bought 2,346 books. The books will be sent in 3 equal shipments. How many books will be in each shipment?

A 882 books
B 802 books
C 792 books
D 782 books

18. Use an exponent to write $7 \times 7 \times 7 \times 7$.

A 7^4
B 7^5
C 7^7
D 4^7

19. Which number is not prime?

A 7
B 31
C 39
D 59

20. Which is the prime factorization of 63?

A $2^3 \times 7$
B $3^2 \times 7$
C $3^3 \times 7$
D 7×9

21. What is the GCF of 45 and 90?

A 5
B 10
C 15
D 45

22. Sheila records the outdoor temperature every 3 hours. She records the wind rate every 5 hours. If she just recorded both the temperature and the wind rate, in how many hours will she again record both the temperature and the wind rate?

A 5 hours
B 10 hours
C 15 hours
D 30 hours

Name _____

Operations with Whole Numbers (continued)

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

23. Which number is divisible by 2, 3, 4, and 9?

A 479
B 843
C 3,459
D 6,156

24.
$$\begin{array}{r} 810 \\ \times\ 100 \\ \hline \end{array}$$

A 810
B 8,100
C 81,000
D 810,000

25. Each section of the arena seats 876 people. The arena has 22 sections. How many people can sit in the arena?

A 19,272 people
B 19,062 people
C 18,062 people
D 3,504 people

26. 56,000 ÷ 800 =

A 7
B 70
C 700
D 7,000

27. Tandy has 207 stamps. She needs to put 30 stamps in each envelope. About how many envelopes will she need?

A About 7 envelopes
B About 8 envelopes
C About 10 envelopes
D About 70 envelopes

28. $72\overline{)318}$

A 3 R30
B 4 R22
C 4 R30
D 5 R30

29. $22\overline{)18{,}924}$

A 850 R4
B 859 R4
C 860 R4
D 860 R40

Name _____

Fractions, Decimals, and Percents

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

30. Find 3 ÷ 10.

A $\frac{3}{10}$ **C** $3\frac{1}{10}$

B $\frac{1}{3}$ **D** $3\frac{1}{3}$

31. What is the improper fraction $\frac{61}{7}$ written as a mixed number?

A $7\frac{2}{7}$ **C** $8\frac{4}{7}$

B $8\frac{2}{7}$ **D** $8\frac{5}{7}$

32. Which statement is true?

A $\frac{4}{6} = \frac{1}{3}$

B $\frac{8}{10} > \frac{5}{5}$

C $\frac{3}{10} < \frac{1}{2}$

D $\frac{1}{7} > \frac{7}{14}$

33. Which is $\frac{15}{25}$ in simplest form?

A $\frac{3}{5}$ **C** $\frac{2}{7}$

B $\frac{2}{5}$ **D** $\frac{1}{5}$

34. Which is four hundred twelve millionths in decimal form?

A 0.000412

B 0.00412

C 0.0412

D 0.412

35. Which is 65.239 rounded to the nearest hundredth?

A 65.0

B 65.2

C 65.23

D 65.24

36. Which is NOT correct?

A $0.02 < 0.2$

B $0.10 = 0.1$

C $0.86 < 0.85$

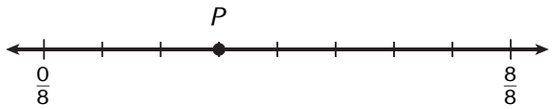
D $3.625 > 3.265$

37. Which of the following is equal to $\frac{2}{10}$?

A 0.2 **C** 0.4

B 0.3 **D** 0.5

38. Point *P* can be represented by which fraction and decimal?



A $\frac{3}{8}$ and 0.375

B $\frac{4}{8}$ and 0.5

C $\frac{5}{8}$ and 0.75

D $\frac{6}{8}$ and 0.75

Name _____

Fractions, Decimals, and Percents (continued)

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

39. Eddie studied for $\frac{1}{3}$ hour on Monday and $\frac{1}{4}$ hour on Tuesday. How long did he study in all?

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

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

C $\frac{7}{12}$ hour

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

40. Oscar ran $\frac{5}{8}$ mile. Tony ran $\frac{5}{6}$ mile. How much farther did Tony run?

A $\frac{5}{24}$ mile

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

C $\frac{7}{8}$ mile

D $1\frac{11}{24}$ miles

41. What is $2\frac{5}{8} + 3\frac{1}{6}$?

A $5\frac{3}{8}$

B $5\frac{17}{24}$

C $5\frac{3}{4}$

D $5\frac{19}{24}$

42. Mrs. Myers bought $6\frac{3}{8}$ yards of ribbon. She used $5\frac{7}{8}$ yards of ribbon on her daughter's dress. How much ribbon did she have left?

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

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

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

D $1\frac{3}{4}$ yards

43. There are 25 marbles in a bag. Two fifths of them are red. How many marbles are red?

A 5 marbles

B 10 marbles

C 15 marbles

D 20 marbles

44. What is $\frac{3}{8} \times \frac{2}{5}$?

A $\frac{1}{8}$ **C** $\frac{5}{13}$

B $\frac{3}{20}$ **D** $\frac{25}{40}$

45. What is $2\frac{5}{6} \times 1\frac{1}{2}$?

A $2\frac{5}{12}$ **C** $4\frac{1}{4}$

B $4\frac{1}{12}$ **D** $4\frac{1}{2}$

Name _____

Fractions, Decimals, and Percents (continued)

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

46. Kendra has 16 pints of blueberries. If she wants to divide them into half pints, how many will she have?

A 4 half pints
B 8 half pints
C 32 half pints
D 42 half pints

47. You have a spool of ribbon containing 16.25 feet and a spool containing 7.375 feet. About how much ribbon do you have all together?

A About 8 feet
B About 9 feet
C About 20 feet
D About 23 feet

48. Sam was 50.75 centimeters tall when he was born. Over the next two years he grew 25.5 centimeters. How tall was he then?

A 25.25 centimeters
B 53.3 centimeters
C 75.25 centimeters
D 76.25 centimeters

49. Ashley rode a total of 34.75 miles. Megan rode a total of 36.20 miles. How many more miles did Megan ride?

A 1.45 miles
B 1.55 miles
C 2.35 miles
D 70.95 miles

50. Marcus drives a total of 87.64 miles to and from school each week. About how many miles does he drive in 8 weeks?

A About 900 miles
B About 720 miles
C About 700 miles
D About 640 miles

51. What is 0.014 × 2.3?

A 3.22
B 0.322
C 0.0322
D 0.00322

52. $6\overline{)98.4}$

A 1.64
B 15.9
C 16.4
D 16.6

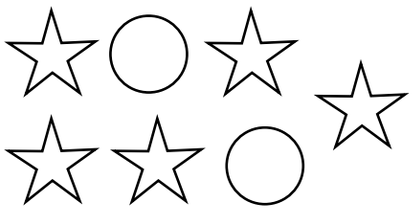
Fractions, Decimals, and Percents (continued)

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

53. What is 28.8 ÷ 0.9?

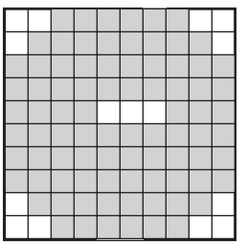
A 0.032
B 0.32
C 3.2
D 32

54. What is the ratio of stars to circles?



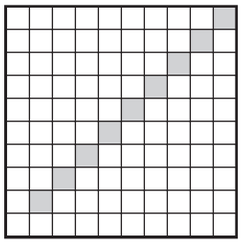
A 2:5
B 2:7
C 5:2
D 5:7

55. Which percent names the shaded part?



A 15%
B 75%
C 85%
D 90%

56. Which does not represent the shaded part?



A 0.9
B 9%
C 0.09
D $\frac{9}{100}$

57. Sheila has tried 9 out of the 50 flavors of yogurt at Jem's Yogurt Shop. What is the percent of the yogurt flavors she has tried?

A 9%
B 15%
C 18%
D 20%

58. Which shows 80% as a fraction in simplest form?

A $\frac{4}{25}$
B $\frac{8}{25}$
C $\frac{4}{5}$
D $\frac{80}{100}$

59. What is 25% of 80?

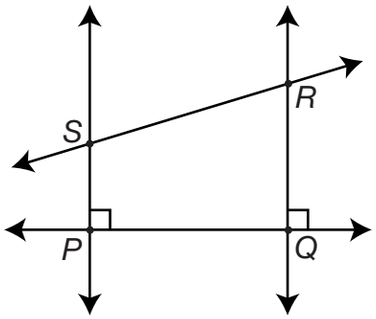
A 4
B 16
C 20
D 36

Name _____

Measurement and Geometry

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

Use the figure for Questions 60 and 61.



60. Name a line perpendicular to $\overleftrightarrow{RQ}$.

A $\overleftrightarrow{SR}$
C $\overleftrightarrow{PQ}$
B $\overleftrightarrow{SP}$
D $\overleftrightarrow{QR}$

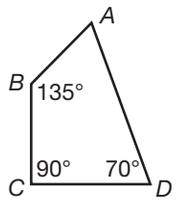
61. Which line is parallel to $\overleftrightarrow{RQ}$?

A $\overleftrightarrow{PQ}$
B $\overleftrightarrow{SP}$
C $\overleftrightarrow{SR}$
D $\overleftrightarrow{QR}$

62. Martin made a triangular flower bed. One side was 14 feet, a second side was 6 feet, and the third side was 10 feet. What type of triangle did Martin form?

A Equilateral
B Isosceles
C Scalene
D Straight

63. What is the measure of angle *A* in the quadrilateral?



A 65°
C 85°
B 75°
D 110°

Use the figures for Questions 64 and 65.

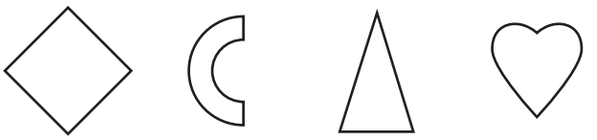


Figure A Figure B Figure C Figure D

64. Which figure has more than one line of symmetry?

A Figure A
B Figure B
C Figure C
D Figure D

65. Which figure can be rotated 90° and fall back on itself?

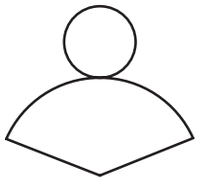
A Figure A
B Figure B
C Figure C
D Figure D

Name _____

Measurement and Geometry (continued)

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

66. Which solid will the net form?



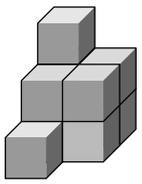
A Cylinder

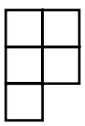
B Cone

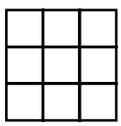
C Square pyramid

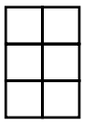
D Sphere

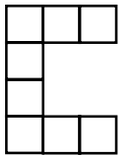
67. Which is the top view of the figure?



A 

C 

B 

D 

68. Which is the best estimate for the weight of a watermelon?

A 8 ounces

B 8 pounds

C 80 pounds

D 800 pounds

69. Brittany bought 5 gallons of distilled water. How many quarts is that?

A 40 quarts

B 20 quarts

C 10 quarts

D 1.25 quarts

70. 97 mm = _____ cm

A 9,700

B 970

C 9.7

D 0.97

71. Todd's recital is at 3:30 Saturday afternoon. It is currently 8:45 the Friday evening before. How long does Todd have to wait for his recital?

A 18 hours 45 minutes

B 18 hours 15 minutes

C 6 hours 45 minutes

D 5 hours 15 minutes

72. The temperature at 4:00 P.M. was 72°F. At noon, it was 8°F colder. What was the temperature at noon?

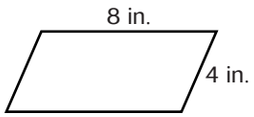
A 64°F **C** 78°F

B 66°F **D** 80°F

Measurement and Geometry (continued)

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

73. What is the perimeter of the figure?



A 16 in. **C** 28 in.

B 24 in. **D** 32 in.

74. Mark shares a room with his brother. The room is a rectangle 10 feet wide and 15 feet long. Mark divides the room along a diagonal from one corner to the opposite corner. What is the area of Mark's part of the room?

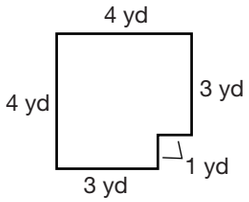
A 150 square feet

B 100 square feet

C 75 square feet

D 60 square feet

75. Celia is buying new carpet for the room shown. How much carpet does she need?



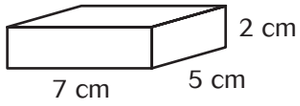
A 15 square yards

B 16 square yards

C 17 square yards

D 18 square yards

76. What is the volume of the figure?



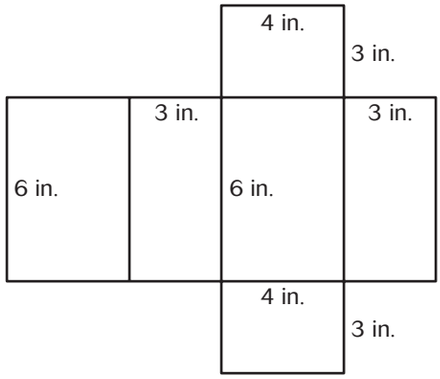
A 70 cm^3

B 55 cm^3

C 35 cm^3

D 14 cm^3

77. Courtney needs to wrap a gift that is in a box that measures 4 inches wide, 6 inches long, and 3 inches tall. What is the surface area of the box?



A 72 $in.^2$

B 108 $in.^2$

C 120 $in.^2$

D 144 $in.^2$

Name _____

Data Analysis and Probability

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

78. How many people solved the crossword puzzle in less than 30 minutes?

Minutes Needed to Solve a Crossword Puzzle

Stem	Leaves
1	9
2	4 4 5 6 9 9
3	0 0 1 1 1 2 4 4 5 5 5 6 8 8 8
4	1 3 7 8
5	2 3

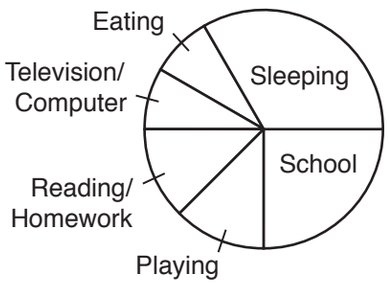
A 7

B 6

C 2

D 1

79. Which sector represents $\frac{1}{4}$ of the circle graph?



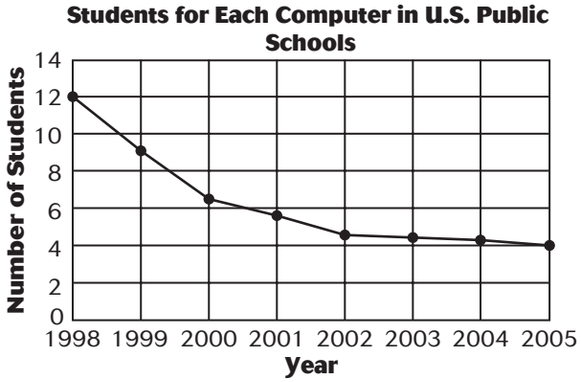
A Reading/homework

B Sleeping

C Television/computer

D School

80. The line graph shows how the number of computers for each student in U.S. public schools changed over time.



What was the first year when there were less than 8 students for each computer?

A 2003

B 2002

C 2001

D 2000

81. The following represents the amounts Leza earned mowing lawns.

$23 $17 $18 $24 $28

What is the mean amount?

A $20

B $22

C $25

D $110

Data Analysis and Probability (continued)

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

82. Find the median for this set of data.

Test Scores						
92	86	72	65	83	75	86

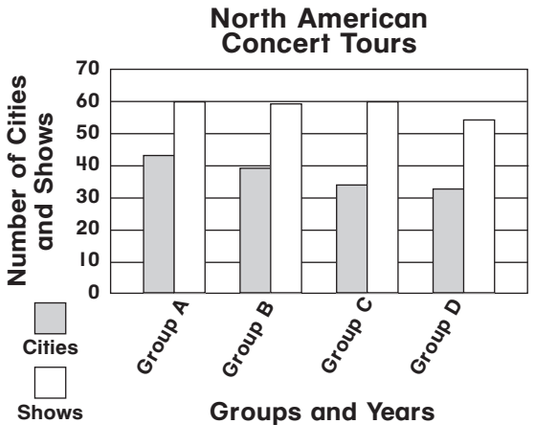
A 27

B 80

C 83

D 86

83. Which group's tour showed the least difference between the number of cities visited and the number of shows played?



A Group A

B Group B

C Group C

D Group D

84. Janet has five pairs of earrings and 3 necklaces that she can wear to the school dance. What is the total number of combinations of a pair of earrings and a necklace that she can choose to wear?

A 15

B 8

C 5

D 3

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

A $\frac{1}{5}$

B $\frac{1}{4}$

C $\frac{3}{10}$

D $\frac{1}{2}$

86. What is the probability that a pretzel will be sold?

Concession Sales	
Item	**Number Sold**
Pretzel	35
Hamburger	10
Veggie Pizza	5

A $\frac{1}{10}$

B $\frac{1}{5}$

C $\frac{1}{2}$

D $\frac{7}{10}$

Name _____

Problem Solving

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

87. How much more will it cost to buy 3 pounds of salami than 3 pounds of ham?

Derek's Deli	
Ham	$2.99 per lb
Turkey	$3.19 per lb
Salami	$3.89 per lb

A $0.90 **C** $2.70

B $1.80 **D** $5.40

88. Each pound of snack mix uses 2 ounces of peanuts, 5 ounces of raisins, and some other nuts. A batch of mix has 12 ounces of peanuts. How many ounces of raisins does this batch of snack mix have?

Peanuts	2	4	6			
Raisins	5	10				

A 30 oz. **C** 22 oz.

B 24 oz. **D** 19 oz.

89. A group of 126 people need to be transported by minibuses. Each minibus holds 18 people. Which can be used to find how many minibuses are needed?

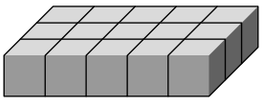
A $126 \div 18 = m$

B $18 \times 126 = m$

C $126 - 18 = m$

D $126 + 18 = m$

90. Your mom ordered a quarter–sheet cake for your birthday. The top and sides of the cake are decorated with your favorite frosting. Aunt Debbie would like a piece with as little frosting as possible. How many pieces have only one surface frosted?



A 12 pieces

B 8 pieces

C 5 pieces

D 3 pieces

91. Mr. Stykes has 214 stickers to give to his class of 26 students. He plans to give the same number of stickers to each student. Which of the following is the only reasonable number of stickers each student will get?

A 12 stickers

B 10 stickers

C 8 stickers

D 4 stickers