Introduction - Grade 4 Mathematics

The following released test questions are taken from the Grade 4 Mathematics Standards Test. This test is one of the California Standards Tests administered as part of the Standardized Testing and Reporting (STAR) Program under policies set by the State Board of Education.

All questions on the California Standards Tests are evaluated by committees of content experts, including teachers and administrators, to ensure their appropriateness for measuring the California academic content standards in Grade 4 Mathematics. In addition to content, all items are reviewed and approved to ensure their adherence to the principles of fairness and to ensure no bias exists with respect to characteristics such as gender, ethnicity, and language.

This document contains released test questions from the California Standards Test forms in 2003, 2004, 2005, 2006, 2007, and 2008. First on the pages that follow are lists of the standards assessed on the Grade 4 Mathematics Test. Next are released test questions. Following the questions is a table that gives the correct answer for each question, the content standard that each question is measuring, and the year each question last appeared on the test.

The following table lists each strand/reporting cluster, the number of items that appear on the exam, and the number of released test questions that appear in this document.

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<thead>
<tr>
<th>STRAND/REPORTING CLUSTER</th>
<th>NUMBER OF QUESTIONS ON EXAM</th>
<th>NUMBER OF RELEASED TEST QUESTIONS</th>
</tr>
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<tr>
<td>Number Sense – Decimals, Fractions, and Negative Numbers</td>
<td>16</td>
<td>26</td>
</tr>
<tr>
<td>Number Sense – Operations and Factoring</td>
<td>15</td>
<td>20</td>
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<tr>
<td>Algebra and Functions</td>
<td>18</td>
<td>24</td>
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<tr>
<td>Measurement and Geometry</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>Statistics, Data Analysis, and Probability</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>65</td>
<td>96</td>
</tr>
</tbody>
</table>

In selecting test questions for release, three criteria are used: (1) the questions adequately cover a selection of the academic content standards assessed on the Grade 4 Mathematics Test; (2) the questions demonstrate a range of difficulty; and (3) the questions present a variety of ways standards can be assessed. These released test questions do not reflect all of the ways the standards may be assessed. Released test questions will not appear on future tests.

For more information about the California Standards Tests, visit the California Department of Education’s Web site at [http://www.cde.ca.gov/ta/tg/sr/resources.asp](http://www.cde.ca.gov/ta/tg/sr/resources.asp).

-- 1 --

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THE NUMBER SENSE STRAND

In Grade 4, there are two reporting clusters within the Number Sense strand: 1) Decimals, Fractions, and Negative Numbers and 2) Operations and Factoring. This booklet contains released test questions for each of these clusters.

The following 10 California content standards are included in the Decimals, Fractions, and Negative Numbers reporting cluster of the Number Sense strand and are represented in this booklet by 26 test questions. These questions represent only some ways in which these standards may be assessed on the Grade 4 California Mathematics Standards Test.

**CALIFORNIA CONTENT STANDARDS IN THIS REPORTING CLUSTER**

<table>
<thead>
<tr>
<th>Number Sense</th>
<th>Students understand the place value of whole numbers and decimals to two decimal places and how whole numbers and decimals relate to simple fractions. Students use the concepts of negative numbers:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Set 1.0</td>
<td>4NS1.1* Read and write whole numbers in the millions.</td>
</tr>
<tr>
<td></td>
<td>4NS1.2* Order and compare whole numbers and decimals to two decimal places.</td>
</tr>
<tr>
<td></td>
<td>4NS1.3* Round whole numbers through the millions to the nearest ten, hundred, thousand, ten thousand, or hundred thousand.</td>
</tr>
<tr>
<td></td>
<td>4NS1.5 Explain different interpretations of fractions, for example, parts of a whole, parts of a set, and division of whole numbers by whole numbers; explain equivalents of fractions (see Standard 4.0).</td>
</tr>
<tr>
<td></td>
<td>4NS1.6 Write tenths and hundredths in decimal and fraction notations, and know the fraction and decimal equivalents for halves and fourths (e.g., 1/2 = 0.5 or .50; 7/4 = 1 3/4 = 1.75).</td>
</tr>
<tr>
<td></td>
<td>4NS1.7 Write the fraction represented by a drawing of parts of a figure; represent a given fraction by using drawings; and relate a fraction to a simple decimal on a number line.</td>
</tr>
<tr>
<td></td>
<td>4NS1.8* Use concepts of negative numbers (e.g., on a number line, in counting, in temperature, in “owing”).</td>
</tr>
<tr>
<td></td>
<td>4NS1.9* Identify on a number line the relative position of positive fractions, positive mixed numbers, and positive decimals to two decimal places.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard Set 2.0</th>
<th>Students extend their use and understanding of whole numbers to the addition and subtraction of simple decimals:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4NS2.1 Estimate and compute the sum or difference of whole numbers and positive decimals to two places.</td>
</tr>
<tr>
<td></td>
<td>4NS2.2 Round two-place decimals to one decimal or the nearest whole number and judge the reasonableness of the rounded answer.</td>
</tr>
</tbody>
</table>

* Denotes key standards (Mathematics Framework for California Public Schools)
The following six California content standards are included in the Operations and Factoring reporting cluster of the Number Sense strand and are represented in this booklet by 20 test questions. These questions represent only some ways in which these standards may be assessed on the Grade 4 California Mathematics Standards Test.

**CALIFORNIA CONTENT STANDARDS IN THIS REPORTING CLUSTER**

<table>
<thead>
<tr>
<th>Number Sense</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard Set 3.0</strong></td>
<td>Students solve problems involving addition, subtraction, multiplication, and division of whole numbers and understand the relationships among the operations:</td>
</tr>
<tr>
<td><strong>4NS3.1</strong></td>
<td>Demonstrate an understanding of, and the ability to use, standard algorithms for the addition and subtraction of multidigit numbers.</td>
</tr>
<tr>
<td><strong>4NS3.2</strong></td>
<td>Demonstrate an understanding of, and the ability to use, standard algorithms for multiplying a multidigit number by a two-digit number and for dividing a multidigit number by a one-digit number; use relationships between them to simplify computations and to check results.</td>
</tr>
<tr>
<td><strong>4NS3.3</strong></td>
<td>Solve problems involving multiplication of multidigit numbers by two-digit numbers.</td>
</tr>
<tr>
<td><strong>4NS3.4</strong></td>
<td>Solve problems involving division of multidigit numbers by one-digit numbers.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard Set 4.0</th>
<th>Students know how to factor small whole numbers:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4NS4.1</strong></td>
<td>Understand that many whole numbers break down in different ways (e.g., (12 = 4 \times 3 = 2 \times 6 = 2 \times 2 \times 3)).</td>
</tr>
<tr>
<td><strong>4NS4.2</strong></td>
<td>Know that numbers such as 2, 3, 5, 7, and 11 do not have any factors except 1 and themselves and that such numbers are called prime numbers.</td>
</tr>
</tbody>
</table>

* Denotes key standards (*Mathematics Framework for California Public Schools*)
THE ALGEBRA AND FUNCTIONS STRAND/REPORTING CLUSTER

The following seven California content standards are included in the Algebra and Functions strand/reporting cluster and are represented in this booklet by 24 test questions. These questions represent only some ways in which these standards may be assessed on the Grade 4 California Mathematics Standards Test.

CALIFORNIA CONTENT STANDARDS IN THIS STRAND/CLUSTER

<table>
<thead>
<tr>
<th>Standard Set 1.0</th>
<th>Students use and interpret variables, mathematical symbols, and properties to write and simplify expressions and sentences:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4AF1.1</td>
<td>Use letters, boxes, or other symbols to stand for any number in simple expressions or equations (e.g., demonstrate an understanding and the use of the concept of a variable).</td>
</tr>
<tr>
<td>4AF1.2*</td>
<td>Interpret and evaluate mathematical expressions that now use parentheses.</td>
</tr>
<tr>
<td>4AF1.3*</td>
<td>Use parentheses to indicate which operation to perform first when writing expressions containing more than two terms and different operations.</td>
</tr>
<tr>
<td>4AF1.4</td>
<td>Use and interpret formulas (e.g., area = length × width or ( A = lw )) to answer questions about quantities and their relationships.</td>
</tr>
<tr>
<td>4AF1.5*</td>
<td>Understand that an equation such as ( y = 3x + 5 ) is a prescription for determining a second number when a first number is given.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard Set 2.0*</th>
<th>Students know how to manipulate equations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4AF2.1*</td>
<td>Know and understand that equals added to equals are equal.</td>
</tr>
<tr>
<td>4AF2.2*</td>
<td>Know and understand that equals multiplied by equals are equal.</td>
</tr>
</tbody>
</table>

* Denotes key standards (Mathematics Framework for California Public Schools)
THE MEASUREMENT AND GEOMETRY STRAND/REPORTING CLUSTER

The following 15 California content standards are included in the Measurement and Geometry strand/reporting cluster and are represented in this booklet by 20 test questions. These questions represent only some ways in which these standards may be assessed on the Grade 4 California Mathematics Standards Test.

CALIFORNIA CONTENT STANDARDS IN THIS STRAND/CLUSTER

<table>
<thead>
<tr>
<th>Standard Set 1.0</th>
<th>Students understand perimeter and area:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4MG1.1</td>
<td>Measure the area of rectangular shapes by using appropriate units such as square centimeter (cm²), square meter (m²), square kilometer (km²), square inch (in²), square yard (yd²), or square mile (mi²).</td>
</tr>
<tr>
<td>4MG1.2</td>
<td>Recognize that rectangles that have the same area can have different perimeters.</td>
</tr>
<tr>
<td>4MG1.3</td>
<td>Understand that rectangles that have the same perimeter can have different areas.</td>
</tr>
<tr>
<td>4MG1.4</td>
<td>Understand and use formulas to solve problems involving perimeters and areas of rectangles and squares. Use those formulas to find the areas of more complex figures by dividing the figures into basic shapes.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard Set 2.0*</th>
<th>Students use two-dimensional coordinate grids to represent points and graph lines and simple figures:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4MG2.1*</td>
<td>Draw the points corresponding to linear relationships on graph paper (e.g., draw 10 points on the graph of the equation y = 3x and connect them by using a straight line).</td>
</tr>
<tr>
<td>4MG2.2*</td>
<td>Understand that the length of a horizontal line segment equals the difference of the x-coordinates.</td>
</tr>
<tr>
<td>4MG2.3*</td>
<td>Understand that the length of a vertical line segment equals the difference of the y-coordinates.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard Set 3.0</th>
<th>Students demonstrate an understanding of plane and solid geometric objects and use this knowledge to show relationships and solve problems:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4MG3.1</td>
<td>Identify lines that are parallel and perpendicular.</td>
</tr>
<tr>
<td>4MG3.2</td>
<td>Identify the radius and diameter of a circle.</td>
</tr>
<tr>
<td>4MG3.3</td>
<td>Identify congruent figures.</td>
</tr>
<tr>
<td>4MG3.4</td>
<td>Identify figures that have bilateral and rotational symmetry.</td>
</tr>
<tr>
<td>4MG3.5</td>
<td>Know the definitions of a right angle, an acute angle, and an obtuse angle. Understand that $90^\circ$, $180^\circ$, $270^\circ$, and $360^\circ$ are associated, respectively with $1/4$, $1/2$, $3/4$, and full turns.</td>
</tr>
<tr>
<td>4MG3.6</td>
<td>Visualize, describe, and make models of geometric solids (e.g., prisms, pyramids) in terms of the number and shape of faces, edges, and vertices; interpret two-dimensional representations of three-dimensional objects; and draw patterns (of faces) for a solid that, when cut and folded, will make a model of the solid.</td>
</tr>
<tr>
<td>4MG3.7</td>
<td>Know the definitions of different triangles (e.g., equilateral, isosceles, scalene) and identify their attributes.</td>
</tr>
<tr>
<td>4MG3.8</td>
<td>Know the definition of different quadrilaterals (e.g., rhombus, square, rectangle, parallelogram, trapezoid).</td>
</tr>
</tbody>
</table>

* Denotes key standards (*Mathematics Framework for California Public Schools*)
THE STATISTICS, DATA ANALYSIS, AND PROBABILITY STRAND/REPORTING CLUSTER

The following five California content standards are included in the Statistics, Data Analysis, and Probability strand/reporting cluster and are represented in this booklet by six test questions. These questions represent only some ways in which these standards may be assessed on the Grade 4 California Mathematics Standards Test.

CALIFORNIA CONTENT STANDARDS IN THIS STRAND/CLUSTER

<table>
<thead>
<tr>
<th>Standard Set 1.0</th>
<th>Students organize, represent, and interpret numerical and categorical data and clearly communicate their findings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4PS1.1</td>
<td>Formulate survey questions; systematically collect and represent data on a number line; and coordinate graphs, tables, and charts.</td>
</tr>
<tr>
<td>4PS1.2</td>
<td>Identify the mode(s) for sets of categorical data and the mode(s), median, and any apparent outliers for numerical data sets.</td>
</tr>
<tr>
<td>4PS1.3</td>
<td>Interpret one- and two-variable data graphs to answer questions about a situation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard Set 2.0</th>
<th>Students make predictions for simple probability situations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4PS2.1</td>
<td>Represent all possible outcomes for a simple probability situation in an organized way (e.g., tables, grids, tree diagrams).</td>
</tr>
<tr>
<td>4PS2.2</td>
<td>Express outcomes of experimental probability situations verbally and numerically (e.g., 3 out of 4; 3/4).</td>
</tr>
</tbody>
</table>

* Denotes key standards (Mathematics Framework for California Public Schools)
1. Which of these is the number 5,005,014?
   A. five million, five hundred, fourteen
   B. five million, five thousand, fourteen
   C. five thousand, five hundred, fourteen
   D. five billion, five million, fourteen

2. The estimated cost to build a new baseball stadium is ninety-four million dollars. What is this number in standard form?
   A. $90,400
   B. $94,000
   C. $90,400,000
   D. $94,000,000

3. There were sixty-two thousand, seven hundred twenty-one seagulls nesting on an island. What is this number in standard form?
   A. 62,721
   B. 627,021
   C. 62,000,721
   D. 62,700,021

4. Which of the following has the greatest value?
   A. 12.1
   B. 0.97
   C. 4.23
   D. 5.08

5. Which decimal should be placed in the box to have the numbers in order from least to greatest?
   
   \[
   0.28 \quad 0.32 \quad 0.54 \quad ? \quad 0.86
   \]
   
   A. 0.25
   B. 0.45
   C. 0.61
   D. 0.93

6. What is 67,834,519 rounded to the nearest hundred thousand?
   A. 67,000,000
   B. 67,800,000
   C. 67,830,000
   D. 67,900,000

7. What is 583,607 rounded to the nearest hundred?
   A. 583,000
   B. 583,600
   C. 583,700
   D. 84,000

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8. What number is 38,708 rounded to the nearest thousand?

A 38,000  
B 38,700  
C 39,000  
D 40,000

9. Which fraction represents the largest part of a whole?

A 1/6  
B 1/4  
C 1/3  
D 1/2

10. Megan bought a package of 10 erasers. If 3 of the erasers are pink, what fraction of the number of erasers in this package is pink?

A 3/7  
B 1/3  
C 3/10  
D 1/10

11. Which fraction means the same as 0.17?

A 17/10  
B 17/100  
C 17/1000  
D 17/1
12. Which square is $\frac{1}{4}$ shaded?

A

B

C

D

13. The numbers in the pattern decrease by the same amount each time. What are the next three numbers in this pattern?

10, 8, 6, 4, 2, __, __, __

A 0, -2, -4
B 0, -1, -2
C 0, 2, 4
D 0, 1, 2

14. Which symbol is located at $-3$ on the number line below?

A

B

C

D
15 Marisol is counting by 3s. If she starts counting at −30, what two numbers are missing below?

\[−30, −27, −24, −21, ___, ___, −12\]

A  −18, −15
B  −19, −17
C  −20, −13
D  −22, −23

16 Kira owes Mark $5, and Mark owes Kira $7. Which statement means the same thing?

A  Kira owes Mark $2.
B  Kira owes Mark $12.
C  Mark owes Kira $2.
D  Mark owes Kira $12.

17 Look at the number line.

\[\text{What point shows the location of } −6\text{ on the number line?}\]

A  Point \( P \)
B  Point \( Q \)
C  Point \( R \)
D  Point \( S \)

18 What fraction is best represented by point \( P \) on this number line?

A  \( \frac{1}{8} \)
B  \( \frac{1}{5} \)
C  \( \frac{3}{4} \)
D  \( \frac{7}{8} \)

19 On the number line below, what number does point \( M \) represent?

A  \( 36 \frac{2}{5} \)
B  \( 37 \frac{1}{5} \)
C  \( 38 \frac{7}{10} \)
D  \( 39 \frac{1}{10} \)
20. Look at the number line.

Between which two shapes is \( \frac{2}{3} \)?
A. between □ and ○
B. between ○ and △
C. between △ and □
D. between □ and ★

21. Which letter represents 0.80 on the number line below?

A. W  B. X  C. Y  D. Z

22. Which point is located at \( \frac{7}{12} \) on the number line below?

A. L  B. M  C. N  D. O

23. On Thursday Chris drove 167 miles, on Friday he drove 68 miles, and on Saturday he drove 73 miles. Approximately how many miles did Chris drive in the three days?
A. 100 miles  B. 200 miles  C. 300 miles  D. 400 miles

24. \[ 8.6 + 7.54 + 9.38 = \]
A. 16.68  B. 17.78  C. 24.42  D. 25.52

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25. The total length of a vehicle is 205.83 inches. What is the length of the vehicle rounded to the nearest whole number?
   A) 200 inches  
   B) 205 inches  
   C) 206 inches  
   D) 210 inches

26. The sales tax for an item is $0.47. What is the amount of tax rounded to the nearest dime?
   A) $0.40  
   B) $0.45  
   C) $0.47  
   D) $0.50

27. \(5894 - 2608 = \)
   A) 3276  
   B) 3286  
   C) 3294  
   D) 3296

28. \(2489 + 1678 = \)
   A) 3057  
   B) 4067  
   C) 4167  
   D) 5157

29. Jonathan read 541 pages during his summer reading program. In order to reach his goal of 650 pages, how many more pages does he need to read?
   A) 99  
   B) 109  
   C) 119  
   D) 199

30. \(267 \div 6 = \)
   A) 43  
   B) 43 R3  
   C) 44  
   D) 44 R3

31. Justin solved the problem below. Which expression could be used to check his answer?
   \[
   \frac{454}{3} \quad 1364
   \]
   A) \((454 \times 3) + 2\)  
   B) \((454 \times 2) + 3\)  
   C) \((454 + 3) \times 2\)  
   D) \((454 + 2) \times 3\)
32. \(528 \times 49 = \)
   A 577
   B 25,872
   C 26,400
   D 26,872

33. There are 58 cases of soda in a warehouse. If there are 24 cans of soda in each case, how many cans of soda are in the warehouse?
   A 1392
   B 1362
   C 1292
   D 1262

34. There are 40 teachers at a school. Each teacher is provided with 2500 sheets of paper. How many sheets of paper is this in all?
   A 10,000
   B 100,000
   C 1,000,000
   D 10,000,000

35. A year has 365 days, and a day has 24 hours. How many hours are in 365 days?
   A 2190
   B 7440
   C 7679
   D 8760

36. Valley Transport has been hired to deliver new seats to the Oak Valley Sports Stadium. The company will use 41 trucks to move the seats. If each truck holds 1025 seats, how many seats will be delivered to the stadium?
   A 41,825
   B 41,925
   C 42,025
   D 42,125

37. A cookie factory can bake 62 trays of cookies in the morning and 53 trays of cookies in the afternoon. If each tray holds 12 cookies, how many cookies can be baked in 1 day?
   A 1250
   B 1260
   C 1370
   D 1380

38. There are 9 rows of seats in a theater. Each row has the same number of seats. If there is a total of 162 seats, how many seats are in each row?
   A 17
   B 18
   C 19
   D 20
39 Maria read a 210-page book in 7 days. She read the same number of pages each day. How many pages did she read each day?

A 30
B 32
C 34
D 36

40 Jeb paid $72 for a magazine subscription. If he is paying $4 for each issue of the magazine, how many issues of the magazine will he receive?

A 18
B 20
C 22
D 24

43 The students in a class made a total of 112 cookies. They divided the cookies equally into 8 bags. How many cookies were in each bag?

A 12
B 13
C 14
D 15

44 Which of these is another way to write the product 12 \times 7?

A 2 \times 3 \times 7
B 3 \times 4 \times 7
C 3 \times 6 \times 7
D 6 \times 6 \times 7

45 Which statement is true?

A The only factors of 8 are 1 and 8.
B The only factors of 9 are 1 and 9.
C The only factors of 10 are 1 and 10.
D The only factors of 11 are 1 and 11.

46 Which is a prime number?

A 4
B 5
C 8
D 9
47 Which number is represented by \( n \)?

\[ 8 \times n = 128 \]

A 13  
B 14  
C 16  
D 19

50 What is the value of the expression below if \( a = 3 \)?

\[ 15 - (a + 8) \]

A 4  
B 12  
C 20  
D 26

48 What number goes in the box to make this number sentence true?

\[ 54 + \square = 71 \]

A 7  
B 17  
C 19  
D 27

51 \( (18 + 3) \div (3 - 2) = \)

A 5  
B 17  
C 19  
D 21

49 What is the value of the expression below?

\[ (13 + 4) - (7 \times 2) \]

A 20  
B 12  
C 10  
D 3

52 What is the value of \( x \)?

\[ (16 \div 2) \times (4 - 2) = x \]

A 0  
B 16  
C 30  
D 32

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53. \(12 \div (4 + 2) = \)
   A. 2
   B. 3
   C. 5
   D. 6

54. What is the value of \(6 \times (36 - 20)\)?
   A. 16
   B. 96
   C. 196
   D. 216

55. \(5 \times (8 - 2) = \)
   A. 25
   B. 30
   C. 38
   D. 42

56. Anna bought 3 bags of red gumballs and 5 bags of white gumballs. Each bag of gumballs had 7 pieces in it. Which expression could Anna use to find the total number of gumballs she bought?
   A. \((7 \times 3) + 5 = \)
   B. \((7 \times 5) + 3 = \)
   C. \(7 \times (5 + 3) = \)
   D. \(7 + (5 \times 3) = \)

57. \(3 \times (9 + 1) - 6 = \)
   A. 12
   B. 18
   C. 22
   D. 24

58. Which equation below represents the area (\(A\)) of the rectangle in square centimeters?
   - Length: 45 cm
   - Width: 9 cm
   A. \(45 = A \times 9\)
   B. \(A = 45 \times 9\)
   C. \(A = (2 \times 45) + (2 \times 9)\)
   D. \(45 = (2 \times A) + (2 \times 9)\)

59. Look at the problem below.
   \(\square = \triangle + 4\)
   If \(\triangle = 7\), what is \(\square\)?
   A. 3
   B. 7
   C. 11
   D. 14
60. The sum of \( x \) plus \( y \) equals 26. If \( x = 17 \), which equation can be used to find the value of \( y \)?

- **A** \( y - 17 = 26 \)
- **B** \( 17 + y = 26 \)
- **C** \( x - y = 26 \)
- **D** \( x + 17 = 26 \)

63. The letters \( S \) and \( T \) stand for numbers. If \( S - 100 = T - 100 \), which statement is true?

- **A** \( S = T \)
- **B** \( S > T \)
- **C** \( S = T + 100 \)
- **D** \( S > T + 100 \)

61. Look at the problem below.

\[ x + y = 10 \]

If \( x = 4 \), what is \( y \)?

- **A** 14
- **B** 8
- **C** 6
- **D** 4

64. \( 35 + 6 = 35 + \square \)

- **A** 2 + 2
- **B** 2 \times 2
- **C** 2 + 3
- **D** 2 \times 3

65. Tina and Derek collect baseball cards. Each has the same number of cards. If Roberto gives Tina and Derek 5 more baseball cards each, who will have the greater number of baseball cards, Tina or Derek?

- **A** Tina
- **B** Derek
- **C** Tina and Derek will have the same number of baseball cards.
- **D** There is not enough information to answer the question.
66 Which number should be put in the box to make this equation true?

\[2 + 10 + 4 = \boxed{ } + 2\]

A 6  
B 10  
C 12  
D 14

CSM21431

67 What number goes in the box to make this number sentence true?

\[(7 - 3) \times 5 = 4 \times \boxed{}\]

A 3  
B 4  
C 5  
D 7

CSM00698

68 If \(21 \times 7 = 7 \times a\), what is the value of \(a\)?

A 3  
B 7  
C 14  
D 21

CSM10499

69 \(3 \times 2 \times 12 = 3 \times 2 \times \boxed{}\)

A 4 \(\times 2\)  
B 5 \(\times 2\)  
C 6 \(\times 2\)  
D 7 \(\times 2\)

CSM3581

70 \(2 \times \boxed{} \times 5 = 2 \times 6 \times 5\)

A 1 \(\times 3\)  
B 2 \(\times 3\)  
C 3 \(\times 3\)  
D 4 \(\times 3\)

CSM3599
71 Gabrielle wants to cover her square garden with mulch to protect her plants. Which bag of mulch will Gabrielle need to buy to exactly cover the entire garden area?

12 feet

A 180 square feet
B 40 square feet
C 20 square feet
D 144 square feet
72 Which statement about the figures is true?

**Figure 1**

15

4

**Figure 2**

20

3

A They both have the same area.
B They both have the same width.
C They both have the same length.
D They both have the same perimeter.

73 Which statement about the figures is true?

**Figure 1**

6

7

**Figure 2**

14

3

A They both have the same area.
B They both have the same width.
C They both have the same length.
D They both have the same perimeter.
Which statement about the figures is true?

A. They have different areas.
B. They have the same area.
C. They have the same length.
D. They have different perimeters.

This figure is made of three squares joined together.

What is the area of the figure in square inches?

A. 9 square inches
B. 18 square inches
C. 27 square inches
D. 81 square inches

What is the perimeter of a rectangle that has a length of 12 feet and a width of 8 feet?

A. 20 ft
B. 32 ft
C. 40 ft
D. 96 ft
77 Chu plotted 3 points on a grid. The 3 points were all on the same straight line. If she plots another point on the line, what could be its coordinates?

A (2, 5)  
B (4, 4)  
C (6, 3)  
D (7, 3)

78 Look at the line segment shown below.

What is the length of the line segment?

A 1 unit  
B 2 units  
C 4 units  
D 6 units
79. Look at the graph. Point S is at (5, 8). Point F is at (5, 1).

How can you find the number of units from point S to point F?

A. Add: 5 + 8
B. Add: 1 + 8
C. Subtract: 8 − 5
D. Subtract: 8 − 1

80. What is the length of the line segment shown on the grid?

A. 9 units
B. 7 units
C. 5 units
D. 4 units

81. What is the length, in units, of a line segment with the endpoints of (1, 2) and (1, 9)?

A. 0
B. 1
C. 7
D. 8
82 Which figures below show pairs of lines that appear to be parallel?

A Figure 1 only  
B Figure 3 only  
C Figure 1 and Figure 2  
D Figure 2 and Figure 3

83 Look at the circle with center \( O \).

The line segment \( AB \) appears to be

A an arc.  
B a perimeter.  
C a radius.  
D a diameter.
84. Which pair of shapes is congruent?

A

B

C

D

85. Which figure has a line of symmetry and rotational symmetry?

A

B

C

D
**86** When it is 10:30, what kind of angle is formed by the hands of the clock?

- A acute
- B obtuse
- C right
- D straight

**87** Which figure can form a pyramid when folded on the dotted lines without overlapping?

- A
- B
- C
- D
88 Donte is making a model. For the next step he needs a geometric solid with a triangular face. Which solid has a face shaped like a triangle?

A cone  
B cube  
C sphere  
D pyramid

89 What kind of a triangle always has 3 acute angles and 3 sides the same length?

A isosceles  
B right  
C equilateral  
D scalene

90 Which shape must have four equal sides and four right angles?

A square  
B rectangle  
C rhombus  
D parallelogram
Pietro surveyed 35 students about their favorite colors and made this bar graph.

Which of the following tally charts did he use to make this graph?

- **A**

- **B**

- **C**

- **D**
Ms. Rosario asked her class to name the type of book each person liked to read. She displayed the results in the table below.

**Favorite Type of Book**

<table>
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<th>Type of Book</th>
<th>Mystery</th>
<th>Biography</th>
<th>Science Fiction</th>
<th>History</th>
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<td>3</td>
<td>7</td>
<td>5</td>
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</table>

Which graph matches the data in the table?
93 What is the mode of this set of numbers?
\{2, 2, 2, 3, 4, 4, 6\}

A 2
B 3
C 4
D 6

94 At a local school, the fourth, fifth, and sixth graders sold flowers as a fundraiser. The bar graph below shows how many flowers were sold by each grade.

How many flowers did the students sell in all?

A 20
B 35
C 40
D 70
95 Royce has a bag with 8 red marbles, 4 blue marbles, 5 green marbles, and 9 yellow marbles all the same size. If he pulls out 1 marble without looking, which color is he most likely to choose?

A  red
B  blue
C  green
D  yellow

96 Phan placed these animal cards into a bag.

What is the probability that she will draw a card with a tiger?

A  $\frac{1}{9}$
B  $\frac{2}{9}$
C  $\frac{3}{9}$
D  $\frac{4}{9}$
## Released Test Questions

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