Assessment For The California Mathematics Standards Grade 5

Introduction: Summary of Goals

GRADE FIVE

By the end of grade five, students increase their facility with the four basic arithmetic operations applied to fractions, decimals, and positive and negative numbers. They know and use common measuring units to determine length and area and know and use formulas to determine the volume of simple geometric figures. Students know the concept of angle measurement and use a protractor and compass to solve problems. They use grids, tables, graphs, and charts to record and analyze data.

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Number Sense

NS 1.1

a. 1. Round 4.123 to the nearest hundreth. _____

2. Round 13.082 to the nearest tenth. _____

_____

b. 1. Round off 6,296,942 to nearest million: _____

2. Round off 6,296,942 to nearest hundred thousand: _____

NS 1.2

a. 1. Write each value as a decimal:

i. 17/1000 = _____

ii. 3/20 = _____

iii. 6% = _____

2. Write each value as a fraction:

i. 0.03 = _____

ii. 1.111 = _____

iii. 8% = _____

iv. 21 = _____

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[CONTINUED]

NS 1.2

a. 3. Write each value as a percent:

i. 0.07 = _____

ii. 0.165 = _____

iii. 17/20 = _____

iv. 1/8 = _____

b. 1. What is 30% of 20?

2. What is 25% of 48?

3. What is 150% of 30?

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NS 1.3 Fill in the blank with a whole number:

$5^4 =$ _____

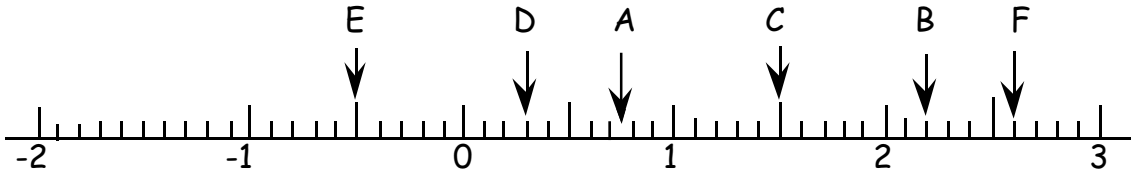
NS 1.4 Write these numbers as the product of their prime factors, using exponents to show multiples of a factor if needed:

a. 48 _____ b. 36 _____

NS 1.5 Write the letter for each number that represents the quantity on the number line.

2.2 _____ 0.3 _____ -0.5 _____

$2\frac{6}{10}$ _____ $\frac{75}{100}$ _____ 1.5 _____



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NS 2.1 Write the answers:

a. 1. 3.20 x 0.05 = _____

2. 20 ÷ 0.05 = _____

3. 18 - 0.342 = _____

4. 8.1 + 0.054 + 7 = _____

b. 1. -4 - 3 = _____

2. -7 + 3 = _____

3. -3 + 7 = _____

4. -4 + (-3) = _____

5. -2 + (-7) = _____

6. -2 - (-7) = _____

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NS 2.2 Write the answers:

a. $45\overline{)32{,}694}$ =

b. $504 \div 2.1$ =

c. $1{,}324 \div 20$ =

NS 2.3 Write the answers:

a. $\frac{3}{4} + \frac{2}{3}$ =

b. $2 - \frac{1}{3}$ =

c. $3\frac{4}{5} + 2\frac{7}{10}$ =

d. $3\frac{5}{12} - 1\frac{3}{18}$ =

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NS 2.4

Write the answers:

a. $\frac{3}{4} \times \frac{8}{9} =$ _____

b. $\frac{2}{5} \div \frac{1}{2} =$ _____

NS 2.5

a. A ribbon is 40 inches long. We want to cut the ribbon into pieces. Each piece will be $\frac{2}{3}$ of an inch. How many pieces will we have?

b. There are 20 bottles in a box. Each bottle weighs $1\frac{3}{4}$ pounds. How many pounds do all the bottles weigh together?

c. Richard has a large pizza. He gives away $\frac{1}{3}$ of it, then he gives away $\frac{1}{2}$ of what he has. How much pizza does Richard have left?

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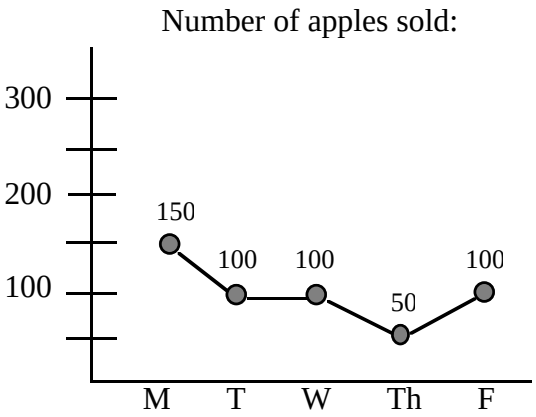
Algebra and Functions

AF 1.1



a. How many apples were sold all together this week? _____

b. How many more apples were sold on Monday than on Friday? _____

AF 1.2

a. A number y is five times greater than two added to a number x. Write an expression for y in terms of x. If x = 3, what is y?

b. y = 3x + 2, what is y if x is 7?

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AF 1.3

3 (4 y - 2) =

A. 7 y - 2

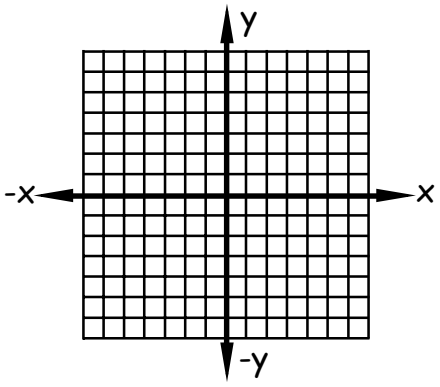
B. 7 y + 6

C. 12 y - 5

D. 12 y - 6

AF 1.4

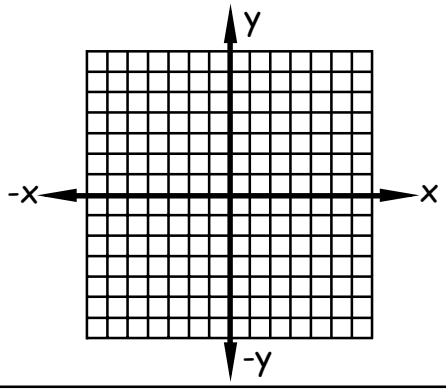
Plot these points: a. (4, 3) b. (-3, 2) c. (-2, -5) d. (5, -1)



AF 1.5

Every car is charged $3 to park. Write the equation for the total charges y if there are x number of cars. Complete the table and plot the points from the table onto the graph.

x	y
1	
2	



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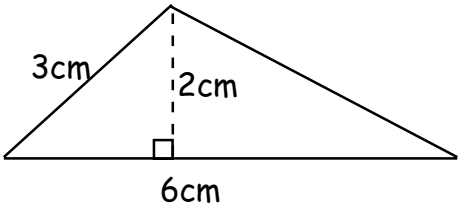
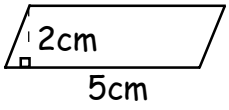
Measurement and Geometry

MG 1.1

a. What is the area of this triangle? _____



b. What is the area of this parallelogram? _____



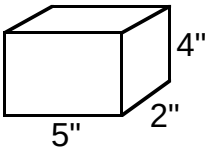
MG 1.2

What is the surface area of a cube whose edges each measure 3 inches?

_____

MG 1.3

What is the volume of this block? _____



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MG 1.4 Identify the statements below as relating to length, area or volume:

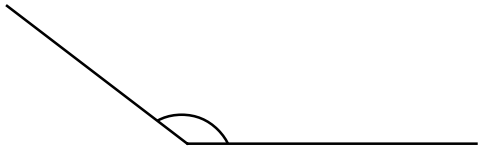
a. The perimeter of a triangle _____

b. The amount of water a barrel will hold _____

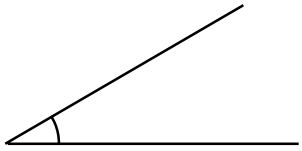
c. The amount of astroturf to cover a football field _____

d. The number of bricks to pave a path _____

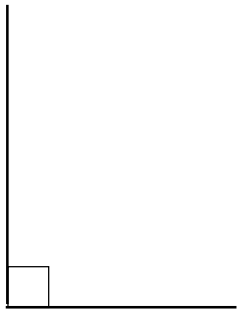
MG 2.1 Using a protractor, determine the number of degrees in each angle



a. _____



b. _____



c. _____

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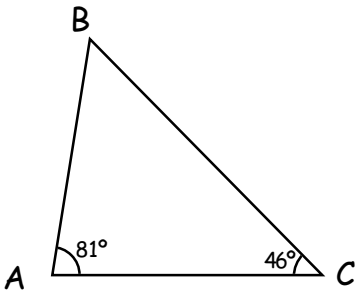
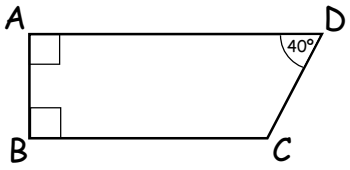
MG 2.2

Examine the figures and answer the questions:





a. m ∠ B = _____

b. How many degrees in angle BCD? _____

MG 2.3

Draw a cube.

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Statistics

S 1.1 Here are Jason's scores on science tests this year.

test	1	2	3	4	5	6	7	8	9	10	11
score	85	91	48	98	99	91	90	84	91	87	80

a. What is his median score? _____

b. What is the mode for all these scores? _____

c. What is the mean of Jason's first five scores?_____

S 1.2

For Jason's marks in science (see the question above), create a histogram for these ranges of scores: 0-85, 86-91, 92-100

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S 1.3

In Ms. Jones' class, 21 of 30 children passed the math test. In Ms.Tyler's class, 18 of 25 children passed the math test.

a. In which class did a higher percentage of students pass?

b.By how many more percentage points?

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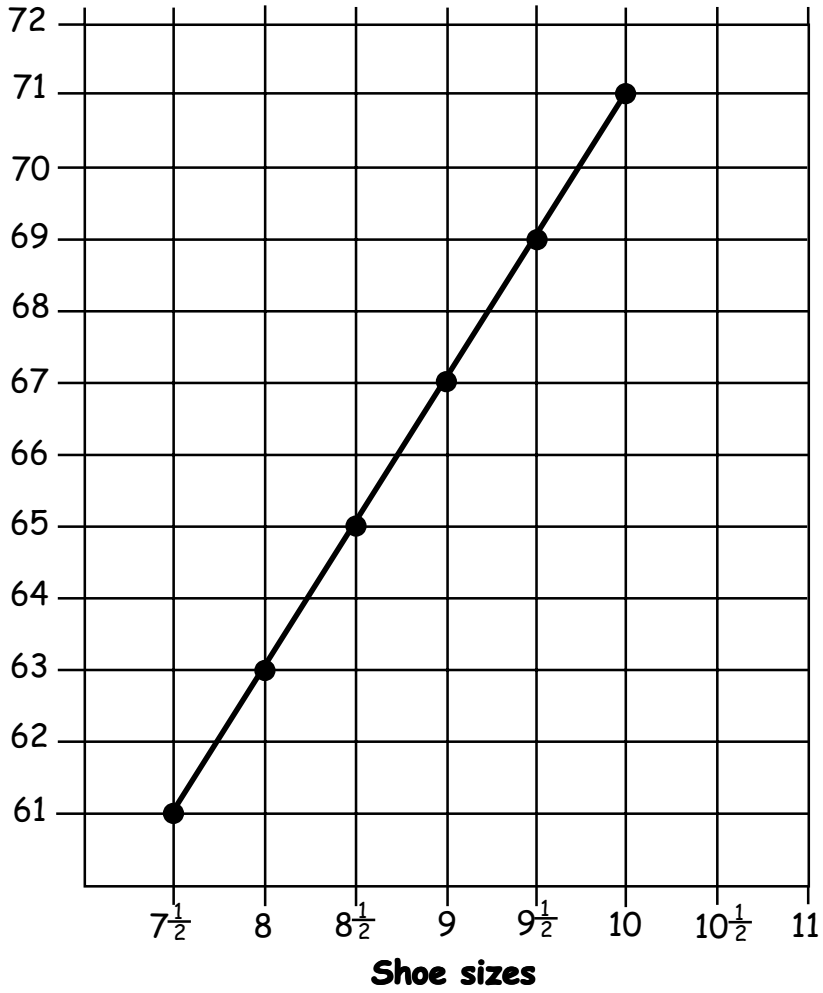
S 1.4



This graph shows the relationship between height and shoe size. According to the data depicted above, what shoe size does a man 71 inches tall wear?

_____

S 1.5

Referring to the question above, which comes first in the ordered pairs, height or shoe size?

_____