Name: EE Test

6.EE.1 Solve each expression.

$3^3 =$ _____

$(8-6)^{6÷2} =$ _____

6.EE.1 Write each expression but do not solve.

Nine cubed minus one = _____

Six plus two, all squared = _____

6.EE.2 Write each expression using numbers and symbols.

The product of q and 9 = _____

Divide u by 8 = _____

Subtract v from 3 = _____

The sum of 7 and w = _____

6.EE.3 Simplify each expression.

$3q + 2q - q =$ _____

$46f + 2 - 42f - 1 =$ _____

$6(c + 4) - 21 =$ _____

$96r - 84 = 12($_____ - _____$)$

6.EE.4 Is each equation always true, regardless of the value of the variable?

$a + b + c = abc(1 + 1 + 1)$ _____

$e^2 × e = e^3$ _____

$3(g + 4h) = 12h + 3g$ _____

$6j - 5j^2 = j^2$ _____

6.EE.5 Solve each equation.
Hint: y < 10

$7y + 7 = 56,$ $y =$ _____

$42 - 6y = 6,$ $y =$ _____

$(y + 1)^2 = 9,$ $y =$ _____

$1 + 72 ÷ y = 10 ,$ $y =$ _____

6.EE.6 Adam steps on a scale holding four bricks of equal weight. The scale reads 360 pounds. Write an equation relating Adam's weight and the weight of the bricks to the total weight shown on the scale. Use 'A' for Adam's weight and 'b' for the weight of a single brick.

_____

6.EE.6 A shirt-making machine can make 20 shirts per hour, but the first two shirts made each day are never good enough to sell because the machine isn't fully warmed up. Write an equation that shows how many sellable shirts can be made in 'h' hours, assuming the machine is turned on once and never turned off.

_____

6.EE.7 Solve each equation.

$a + 18 = 92$, a = _____

$9b = 189$, b = _____

$546 + c = 987$, c = _____

$d \times 54 = 324$, d = _____

6.EE.8 Write a possible value of 'x' for each inequality.

$x > 100$, x = _____

$x < 1$, x = _____

6.EE.8 "You must be taller than 48 inches to ride." Write an inequality to describe the height, 'h', of any rider.

_____

6.EE.8 Graph each inequality.

An unknown number is greater than 3.

3
——————|——————
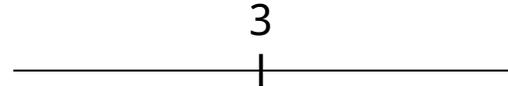
6 is greater than an unknown number.

6
——————|——————
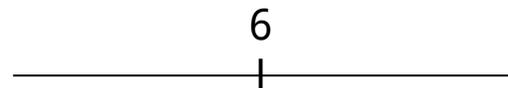
6.EE.9 Solve each word problem.

Joey drives his car 80 miles per hour on the highway. Write an equation that relates his distance traveled (d) to the time elapsed (t).

_____

Use your equation to determine how many hours it will take Joey to travel 320 miles.

_____

6.G.1   **Find the area of the triangle.**

_____

4 in

8 in
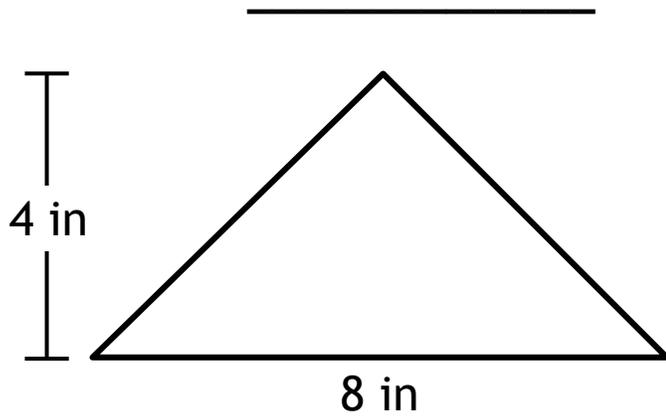
6.G.1   **Find the area of the polygon.**

_____
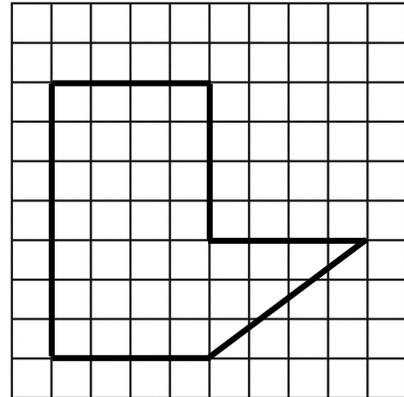
**6.G.2**   **Find the volume.**

¾ ft

¾ ft

2 ½ ft

_____
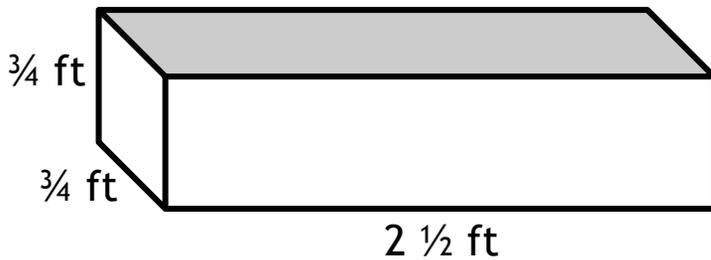
6.G.2

A cardboard box has a base of 4 ⅕ inches and a height of 6 ½ inches. What is the volume of the box?

_____

6.G.2   **Fill the rectangular prism with cubes to find the volume.**

Volume = _____

L = ⅓ cm
W = ⅓ cm
H = ⅓ cm
V = 1/27 cm³

⅓ cm

⅓ cm

1 ⅓ cm
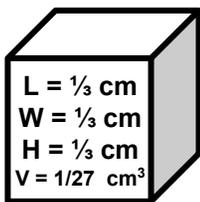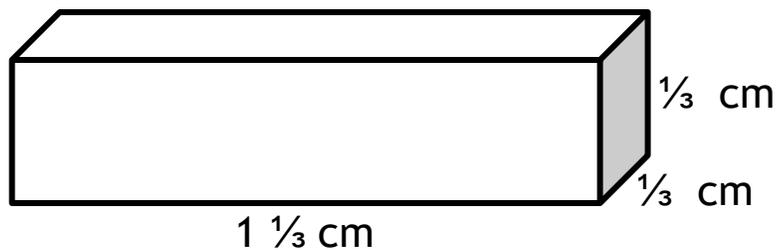
6.G.3

Draw the quadrilateral ABCD whose vertices are A(−4, −4), B(8, −4), C(5, 5), D(−1, 5).

What is the length of the side between points A and B?

_____

What is the length of the side between points C and D?

_____

y

x
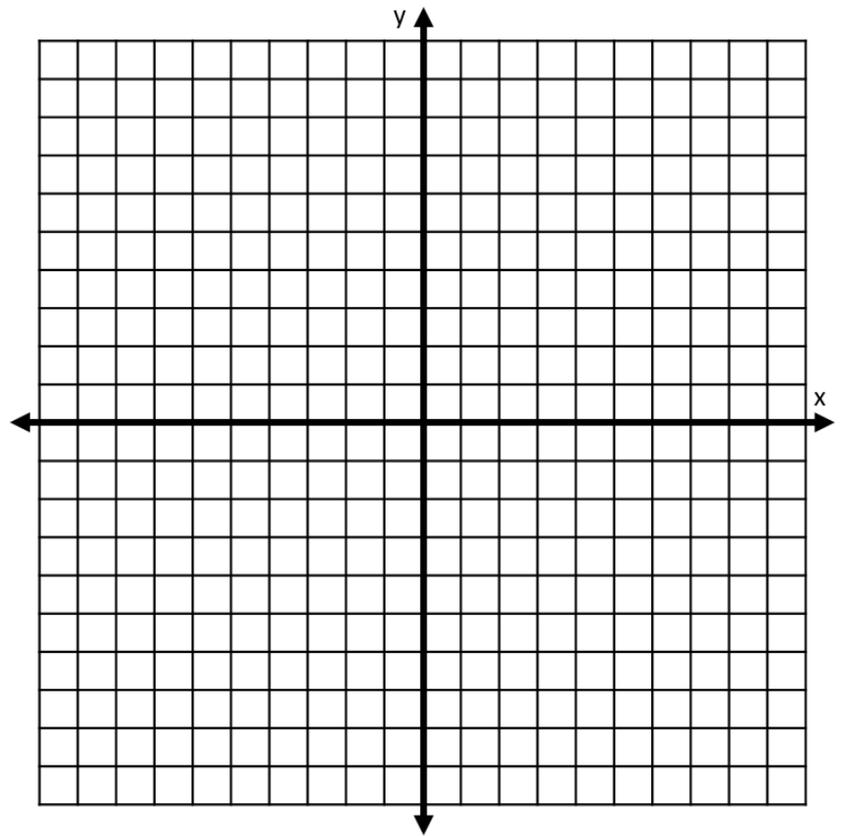
6.G.4

Find the surface area of the square-based pyramid using the net. _____

3 cm

3 cm
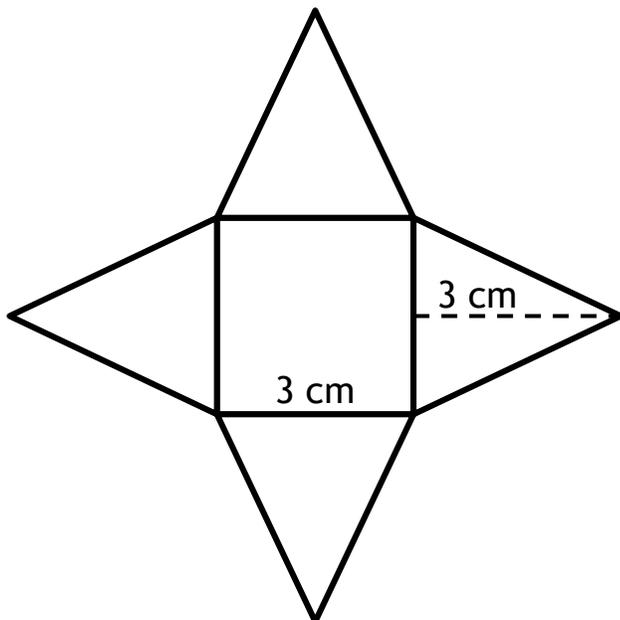
6.G.4

Alvin's wrapping service wraps Christmas presents and charges $0.01 per square inch of the package. Theodore wants to pay Alvin to wrap a package for Simon. It is a box 12 inches long, 5 inches wide, and 3 inches tall. How much will Alvin charge Theodore to wrap it?

_____

6.NS.1 Solve.

$$\frac{4}{5} \div \frac{2}{3} =$$

6.NS.1 Draw a model to illustrate the problem and solve.

$$2 \div \frac{1}{4} =$$

6.NS.2 Solve.

5,217 ÷ 37 = _____

13,205 ÷ 24 = _____

6.NS.3 Solve.

57.58 + 673.442 = _____

352.81 - 58.361 = _____

12.36 × 7.54 = _____

24.91 ÷ 5.3 = _____

6.NS.4 Solve each problem.

Find the greatest common factor of

16 and 36. _____

Find the least common multiple of

4 and 7. _____

6.NS.4 Fill in each blank to make the equations true.

Hint: Apply the distributive property to solve this without calculating.

6 × (7 + __) = 42 + 12

12 + 8 = __ × (3 + 2)

6.NS.5 The record low temperature in Iowa is 47°F below zero.

Write this temperature using a negative sign. _____

Which integer represents this scenario?

3 more inches of snow this winter than last winter

a) -3"   b) 3"

⟩6.NS.6⟩ **Plot and label the following coordinate pairs on the graph.**

A (½, -2) B (-7.5, -10) C (4.5, 8) D (-9 ½, 5)

E (-2, 6 ½) F (5.5, 9) G (-8.5, 0) H (1 ½, -3)
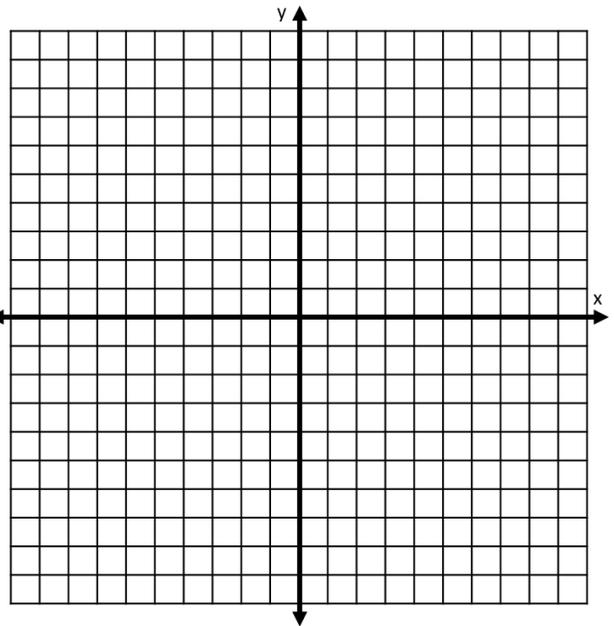
⟩6.NS.7⟩ **Solve each problem.**

|-13| ◯ 12

|24| ◯ |-24|

⟩6.NS.7⟩ Michigan's lowest recorded temperature is -51°F and Minnesota's lowest recorded temperature is -60°F. Write the temperatures as a comparison, using >, <, or =. _____

⟩6.NS.8⟩ **Solve each problem.**

A map of Squaresville is shown. Each unit represents one mile. How many miles is the hospital from the school?

_____

A map of Squaresville is shown. Each unit represents one mile. The bank is ____ miles North and ____ miles East of the school.

(-3, 1) Hospital

(4, 2) Bank

(4, -3) Library

(-3, -6) School
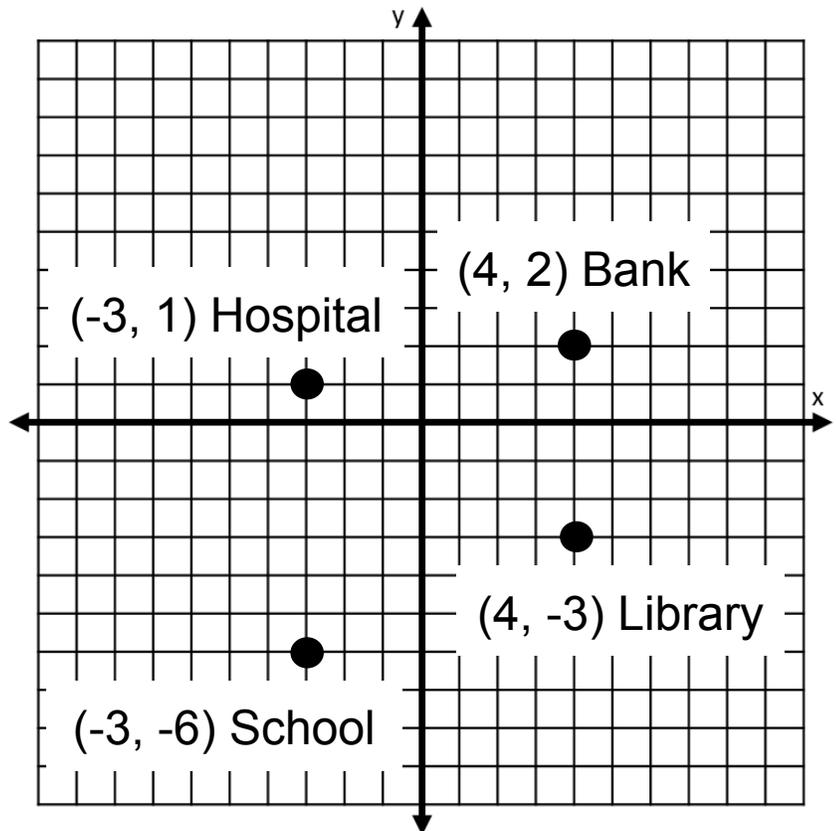
6.RP.1 | **What is the ratio of squares to triangles?**

_____
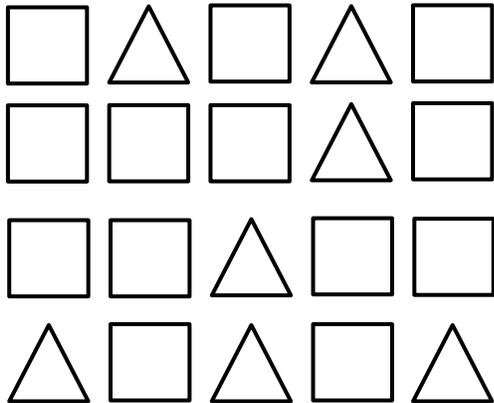
6.RP.1 | **Fill in each blank.**

The ratio of cookies to eggs was 9 to 1, which means that _____ cookies could be made using 3 eggs.

The ratio of teachers to students is 1 to 15. If there are 10 teachers, how many students are there? _____

6.RP.1 | **Circle which statements are true.**
girls = 7 boys = 4

a) The ratio of girls to boys is 7:4.

b) For every 7 girls there are 4 boys.

c) The ratio of boys to girls is 7:4.

d) For every 7 boys there are 4 girls.

6.RP.2 | Farmer John sells a dozen eggs for $1.56. What is the unit cost per egg?

_____

6.RP.2 | Wanda prepared 14 pizzas after working 2 hours. If Wanda prepares pizzas at the same rate, how many hours would Wanda have to work to prepare 42 pizzas?

_____

6.RP.2 Darrell earned a total of $10 by selling 8 cups of lemonade. How many cups of lemonade does Darrell need to sell in all to earn $25?

_____

6.RP.3 If it took 10 hours to mow 15 lawns, then at that rate, how many lawns could be mowed in 24 hours? What was the rate of lawns mowed per hour?

_____

6.RP.3 There were 44 dogs and cats at the pet store. If 75% were cats, how many cats were at the pet store?

_____

6.RP.3 If George the giraffe is 18 feet tall, how many inches tall is he?

_____

6.RP.3 For every 3 cups of flour, 5 batches of brownies can be made. Create a table showing the batches of brownies that can be made based on the provided data. Then, plot the values on the coordinate plane.

Cups of Flour in Brownies	Batches of Brownies
3	5
6	
9	
12	
15	

Cups of Flour in Brownies

Batches of Brownies (y-axis): 5, 10, 15, 20, 25
Cups of Flour (x-axis): 0, 3, 6, 9, 12, 15
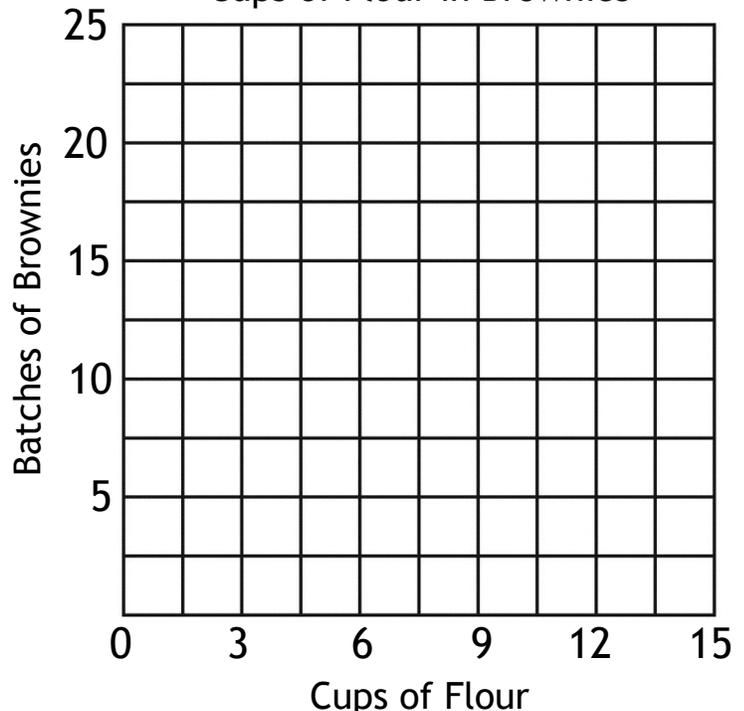
⟩6.SP.1⟩ **Is each question a statistical question? (Yes/No)**

What are the lengths of the fish in

the pond? _____

How much does your goldfish weigh?

_____

⟩6.SP.1⟩ **Is each question a statistical question? (Yes/No)**

What time is it in Tokyo?

_____

What are the ages of all the people

in your school? _____

⟩6.SP.2⟩ The spread of a distribution:

a) describes the variability of the data.

b) tells how many points there are.

c) equals the median plus the mean.

d) defines its midpoint.

⟩6.SP.2⟩ A distribution is:

a) the minimum and maximum values of a set of numbers.

b) a single value in a bigger set of numbers.

c) the average value in a data set.

d) a set of values that satisfies a statistical question.

⟩6.SP.3⟩ A dataset's _____ measures how far a set of numbers are spread out from their average value.

a) distribution
b) mean
c) median
d) variance

⟩6.SP.3⟩ A measure of a dataset's _____ summarizes all of its values with a single number.

a) center
b) distribution
c) shape
d) spread

6.SP.4

Ninety-nine students were asked how many miles they live from school. Make a box plot using this summary of their responses.

Minimum = 1

Maximum = 10

Quartile 1 = 2

Median = 6

Quartile 3 = 8

Miles

10
9
8
7
6
5
4
3
2
1
0
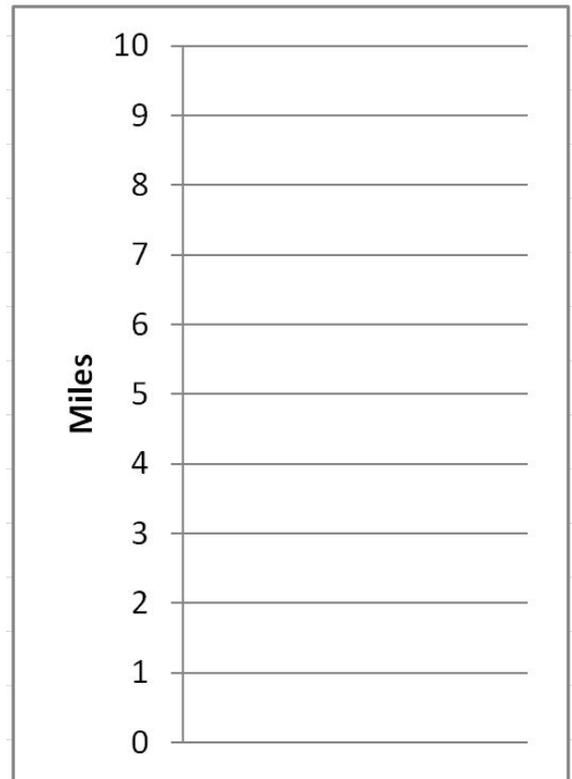
6.SP.5 **Eight players on a soccer team scored the following number of goals this season: 4, 9, 0, 1, 7, 7, 1, 3**

What was the minimum number of goals scored? _____

What was the maximum number of goals scored? _____

What was the first quartile? _____

What was the third quartile? _____

What is the interquartile range? _____

What is the median number of goals scored? _____

What is the mean average number of goals scored? _____

What is the mean absolute deviation from the mean? _____