

**Rising 7th Grade  
Summer Math Packet**

**Fractions** Write each fraction in simplest form.

$\frac{5}{15}$	$\frac{2}{6}$	$\frac{8}{12}$	$\frac{12}{20}$
$\frac{7}{21}$	$\frac{3}{9}$	$\frac{4}{16}$	$\frac{3}{12}$
$\frac{2}{7}$	$\frac{14}{6}$	$\frac{20}{10}$	$\frac{4}{20}$

**Words and Symbols** Write the phrase as an algebraic expression.

3 more runs than the Pirates scored \_\_\_\_\_

A number decreased by eight \_\_\_\_\_

Ten dollars more than Grace has \_\_\_\_\_

**One Step Equations** Solve for the variable.

$8 + w = 17$	$6 = 3y$	$d - 12 = 5$
$\frac{c}{7} = 3$	$a + 8 = 23$	$10 = 45 - n$

**Exponents** Evaluate each expression.

$2^4$

$3^3$

$4^2$

**Order of operations** Simplify.

$15 - 3 \cdot 4 + 8$

$32 + 4 \cdot 2 - (9 + 2)$

**Integer Operations** Solve.

$5(-10)$	$5 + (-3)$	$-7 - 3$	$-52$
$8 + (-20)$	$-9(-4)$	$-6 + (-5)$	$-8 - (-15)$
$2 - 13$	$(-3)(-4)(-1)$	$16 + (-20)$	$-23 - 12$
$\frac{15}{-3}$	$(-2)(-4)(-6)(-10)$	$36 - (-22)$	$\frac{-30}{-6}$

**Algebraic Expressions** Identify each part of the expression as a term, like terms, constant, or coefficients.

$$-4x + 12 + x$$

$$2 + 3a + 9a$$

$$7 - 5x + 1$$

Write  $7x - 2 - 7x + 6$  in simplest form.

**Rational Numbers** Multiply and Divide Fractions

$$\frac{2}{3} \left( \frac{1}{4} \right)$$

$$\frac{1}{3} \left( \frac{8}{9} \right)$$

$$4 \left( \frac{2}{5} \right)$$

$$\frac{2}{3} \div \frac{1}{4}$$

$$\frac{1}{4} \div \frac{2}{3}$$

$$2\frac{2}{6} \div \frac{7}{8}$$

$$8 \div \frac{1}{4}$$

$$\frac{1}{6} \div 3$$

$$\frac{3}{4} \div 4$$

## Use the Percent Proportion

Type	Example	Proportion
Find the percent	What percent of 5 is 4?	$\frac{4}{5} = \frac{n}{100}$
Find the part	What number is 80% of 5?	$\frac{80}{100} = \frac{n}{5}$
Find the whole	4 is 80% of what number?	$\frac{4}{n} = \frac{80}{100}$

What percent of 60 is 15?

What number is 15% of 60?

9 is 12% of which number?

12% of 72 is what number?

What percent of 50 is 18?

A pair of sneakers is on sale as shown. This is 75% of the original price. What was the original price of the sneakers?

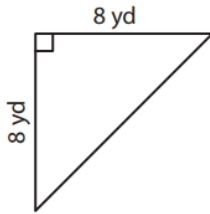


Of the 60 books on a bookshelf, 24 are nonfiction. What percent of the books are nonfiction?

Roman has 2 red pencils in his backpack. If this is 25% of the total number of pencils, how many pencils are in his backpack?

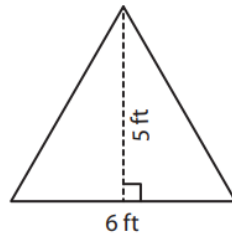
**Area** Find the area of each figure and include the units with your answer.

1)



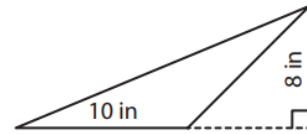
Area =

2)



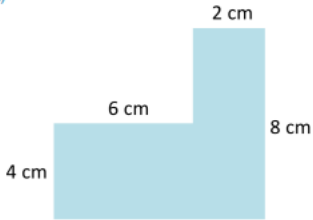
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3)



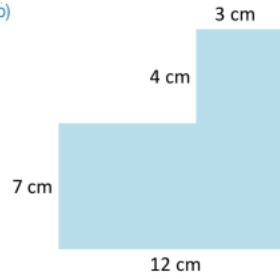
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a)



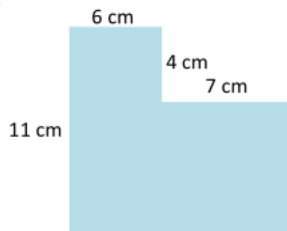
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b)



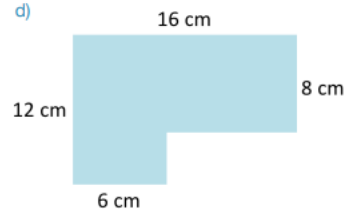
Area =

c)



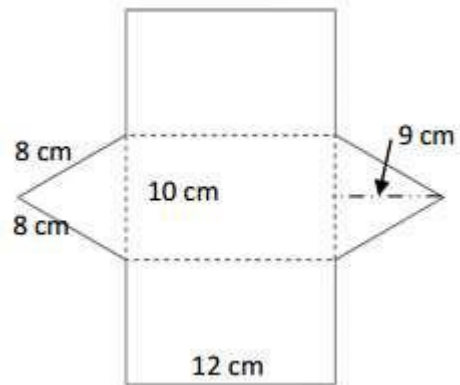
Area =

d)



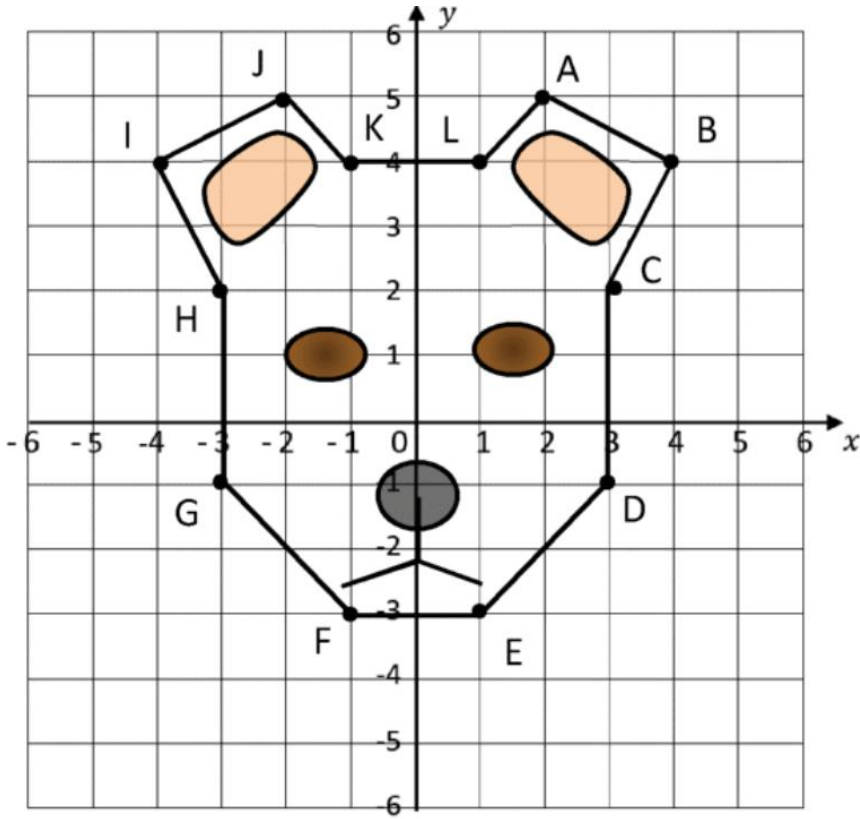
Area =

What is solid shape does this net fold to make?  
What is the area?



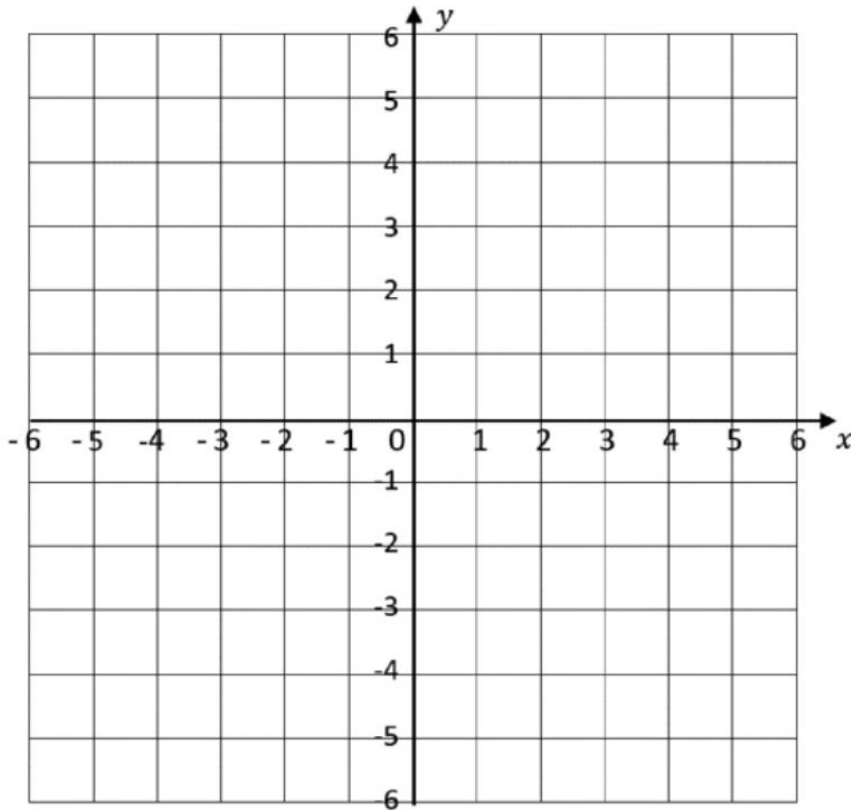
# Coordinate Grid

x-value comes first  
 $(x, y)$   
 y-value comes second



1) Write down the coordinates of each point of the face.

A ( , )	G ( , )
B ( , )	H ( , )
C ( , )	I ( , )
D ( , )	J ( , )
E ( , )	K ( , )
F ( , )	L ( , )



2) Draw your own face using the grid below and write down the coordinates of the outline.

A ( , )	H ( , )
B ( , )	I ( , )
C ( , )	J ( , )
D ( , )	K ( , )
E ( , )	L ( , )
F ( , )	M ( , )
G ( , )	N ( , )

## Decimals

Divya is cooking dinner. She goes to the market to buy ingredients. The price per pound of different ingredients is shown in the table below.

Ingredient	Price (per lb)
Beef	\$10.65
Onions	\$2.49
Potatoes	\$3.29
Tomatoes	\$8.45
Asparagus	\$4.99

Divya's recipe calls for 1 and a half pounds of beef, a half a pound of onions, .2 pounds of potatoes, .3 pounds of tomatoes, and 2 pounds of asparagus. How much will she have to pay for her ingredients? Show all your work.

Divya's two friends are going to help her pay for the supper. If they split the cost 3 ways, how much will each person need to pay?

**This table shows the hours three carpenters worked, the number of chairs each made, and how much money each made.**

Carpenter	Time worked (h)	Chairs made	Money earned (\$)
Dan	38	7	459.80
Flora	35	6	903.00
Chandra	32	5	680.00

Which carpenter makes the most money per hour? Show your work.

**For help completing this packet, extra practice, or enrichment:**



<https://www.ixl.com/standards/georgia/math/grade-6> has practice problems for all of the standards you should have learned last year. You could also preview some of the 6<sup>th</sup> grade ones if you have time.

<https://www.funbrain.com/math-zone> has math and logic games by grade level.



**Khan Academy** has helpful videos and self-guided practice problems for every grade level. Go to [www.khanacademy.org](http://www.khanacademy.org) to get started.



<http://www.coolmath.com/> has help and video by topic. It also has a link to a cool math games that will keep you busy all summer!