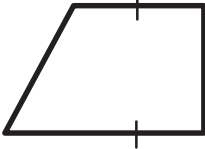

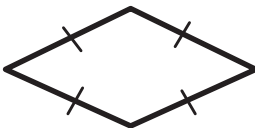
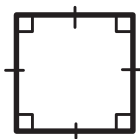



NAME _____




DATE _____

Classifying Quadrilaterals

A *quadrilateral* is any polygon that has 4 sides. There are many kinds of quadrilaterals, including:

<p>Trapezoid: a quadrilateral with exactly 1 pair of parallel sides</p> 	<p>Rectangle: a quadrilateral with 2 pairs of parallel sides and 4 right angles</p> 
<p>Rhombus: a quadrilateral with 4 sides that are all the same length</p> 	<p>Square: a quadrilateral with 4 right angles and 4 sides that are all the same length</p> 
<p>Parallelogram: a quadrilateral with 2 pairs of parallel sides</p> 	

1 Look carefully at the figures below. Decide how many right angles, pairs of congruent sides, and pairs of parallel sides each has. Then circle the word or words that say what kind of figure it is. You might circle more than one word for some figures.

Figure	Right Angles?	Pairs of Congruent Sides?	Pairs of Parallel Sides?	Circle the word(s) that describe(s) the figure.
<p>a</p> 				trapezoid rectangle rhombus square parallelogram
<p>b</p> 				trapezoid rectangle rhombus square parallelogram
<p>c</p> 				trapezoid rectangle rhombus square parallelogram

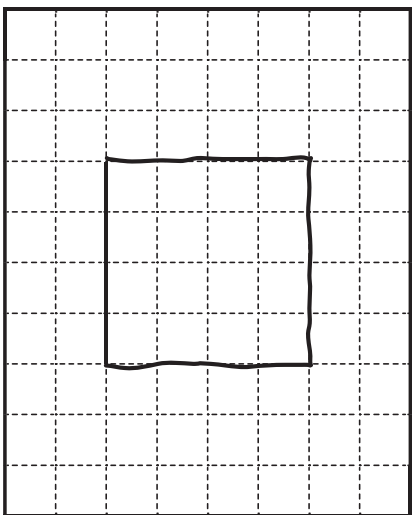
NAME _____

DATE _____

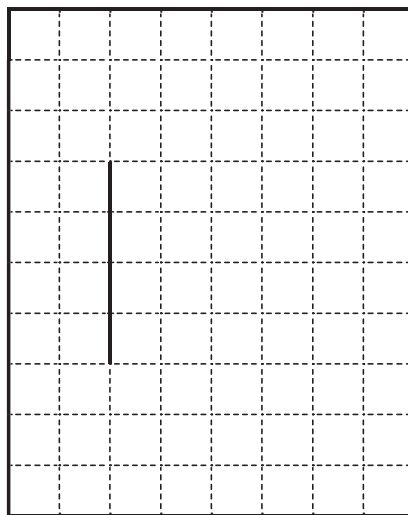
Drawing Quadrilaterals

1 Start with the same line each time to draw the different shapes named below.

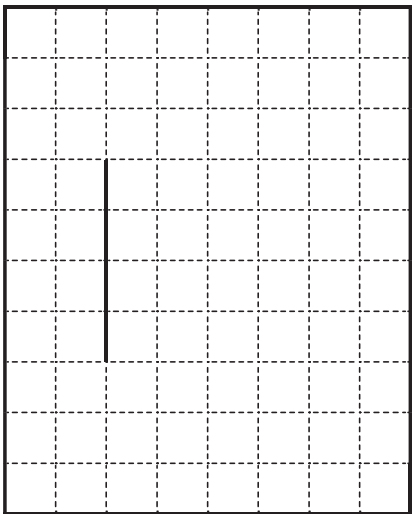
ex Square



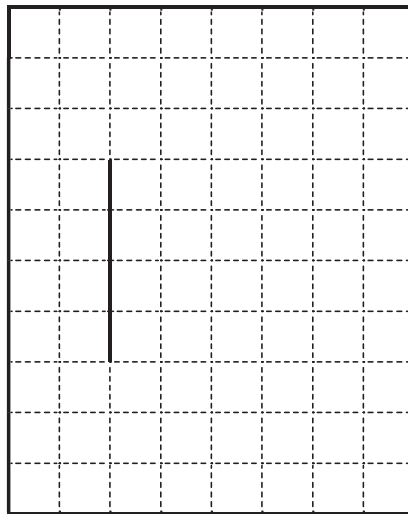
a Parallelogram that is not a rhombus or rectangle



b Trapezoid



c Rectangle that is not a square



CHALLENGE

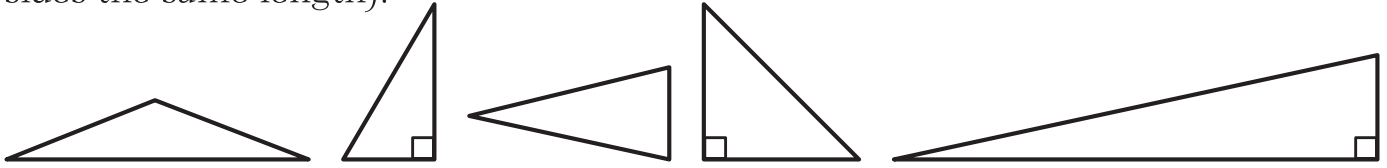
2 Which of your shapes above has the largest area? How can you tell?

NAME _____

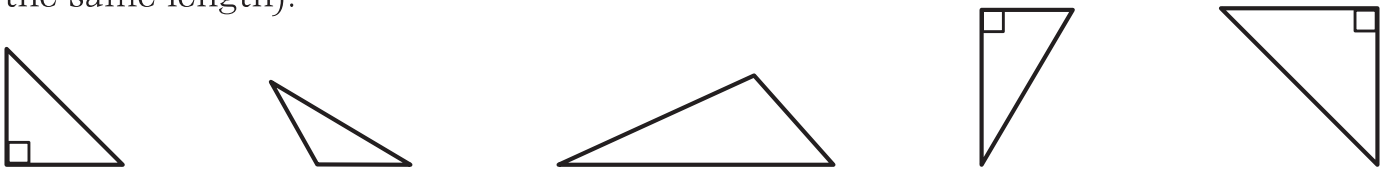
DATE _____

Identifying & Drawing Triangles

1 Circle the *right triangle* (one right angle) that is also an *isosceles triangle* (two sides the same length).

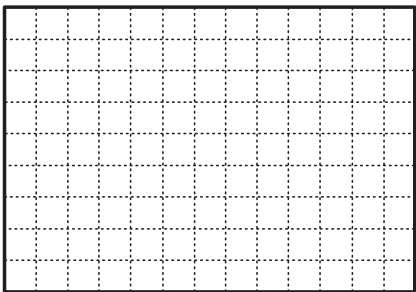


2 Circle the *right triangle* (one right angle) that is also a *scalene triangle* (no sides the same length).

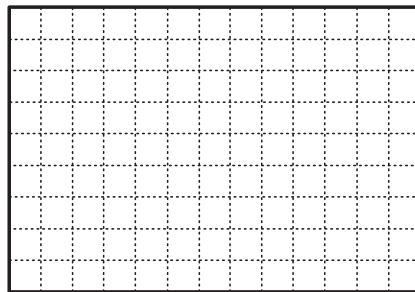


3 Draw the triangles described below.

a An obtuse isosceles triangle

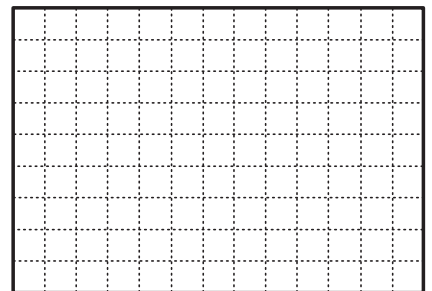


b An acute isosceles triangle



CHALLENGE

4 Lawrence said he drew a right obtuse triangle. Rosa said that was impossible. Explain why Rosa is correct.

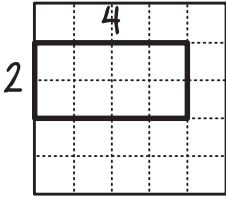
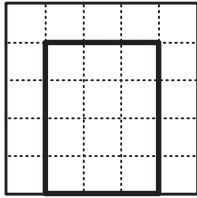
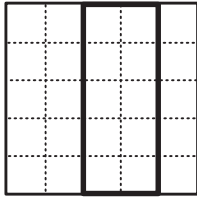


NAME _____

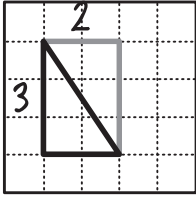
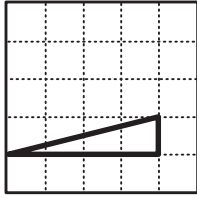
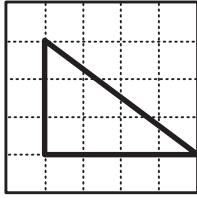
DATE _____

Finding the Areas of Rectangles, Triangles & Parallelograms

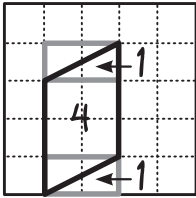
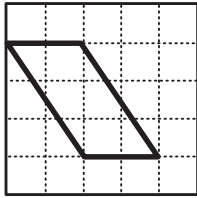
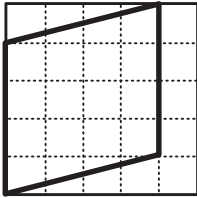
1 Find the area of each rectangle below. Each small square has an area of 1 square unit.

<p>ex</p>  <p>$2 \times 4 = 8$ 8 square units</p>	<p>a</p> 	<p>b</p> 
--	---	---

2 Find the area of each triangle below. Each small square has an area of 1 square unit.

<p>ex</p>  <p>$(3 \times 2) \div 2 = 3$ 3 square units</p>	<p>a</p> 	<p>b</p> 
---	---	---

3 Find the area of each parallelogram below. Each small square has an area of 1 square unit.

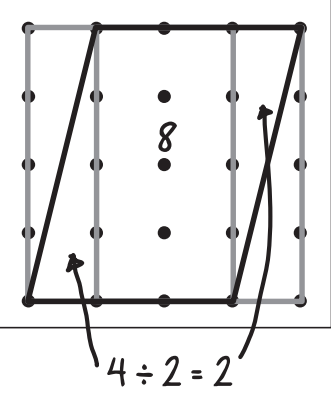
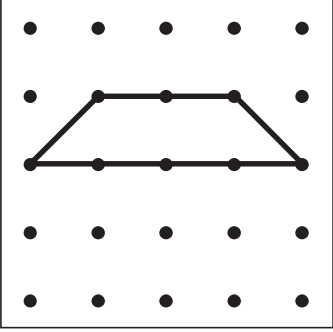
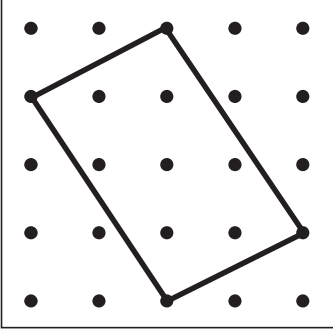
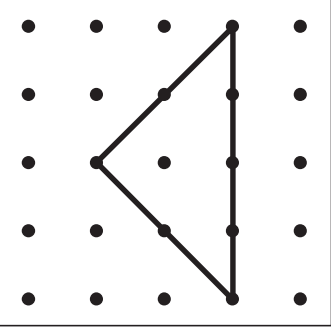
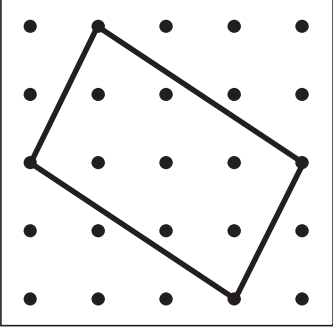
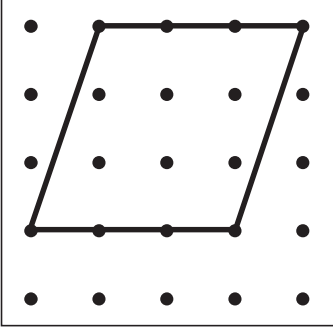
<p>ex</p>  <p>$2 \div 2 = 1$ $2 \times 2 = 4$ $1 + 1 + 4 = 6$ 6 square units</p>	<p>a</p> 	<p>b</p> 
---	---	---

NAME _____

DATE _____

Finding the Areas of Quadrilaterals

Find the area of each of these figures if the area of each small square on the geoboard is 1 square unit. Remember that you can divide the figures into pieces or draw shapes around them to help you find the area.

<p>ex Area = <u>12 sq. units</u></p>  <p>$4 \div 2 = 2$</p> <p>$2 + 2 + 8 = 12 \text{ sq. units}$</p>	<p>1 Area = _____</p> 	<p>2 Area = _____</p> 
<p>3 Area = _____</p> 	<p>4 Area = _____</p> 	<p>5 Area = _____</p> 

NAME _____

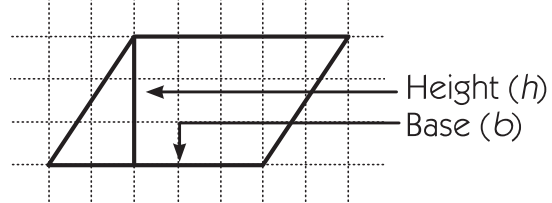
DATE _____

Finding the Areas of Parallelograms

To find the area of any parallelogram, including squares and rectangles, multiply the base by the height.

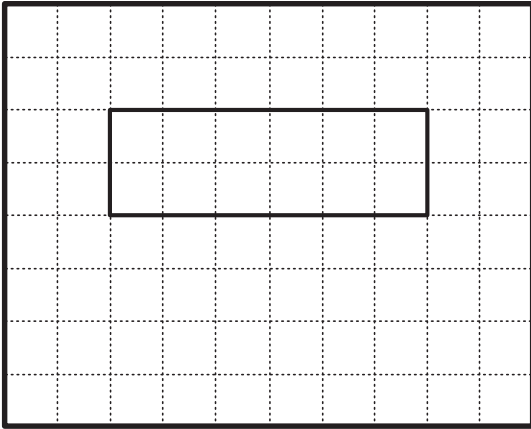
$$\text{Base} \times \text{Height} = \text{Area}$$

$$5 \times 3 = 15 \text{ square units}$$



1 Multiply the base by the height to find the area of these parallelograms.

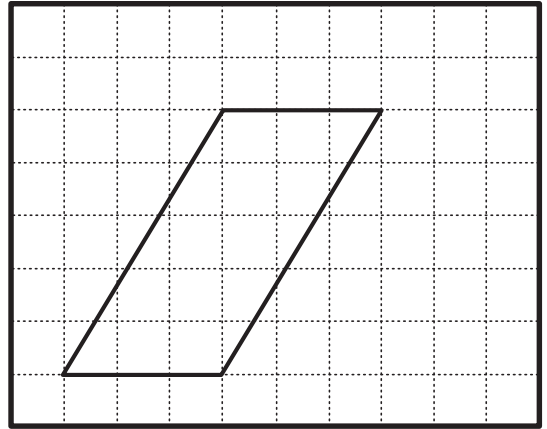
ex



Base 6 Height 2

Area $6 \times 2 = 12$ square units

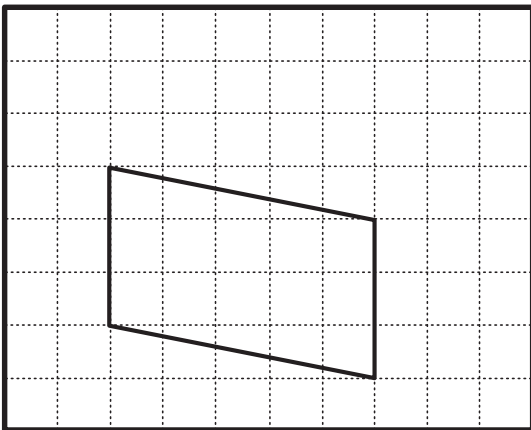
a



Base _____ Height _____

Area _____

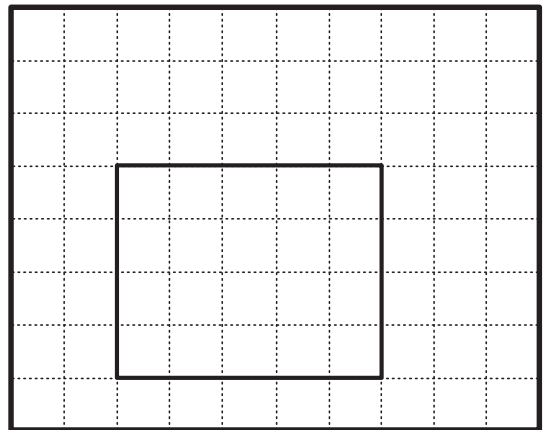
b



Base _____ Height _____

Area _____

c



Base _____ Height _____

Area _____

NAME _____

DATE _____

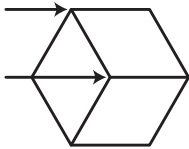
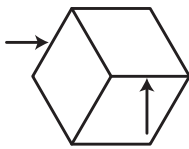
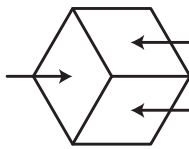
Faces, Edges & Vertices

1 Use each word one time to show what part of the cube the arrows are pointing to in each picture.


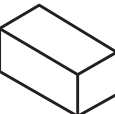





edges

faces

vertices

<p>a _____</p> 	<p>b _____</p> 	<p>c _____</p> 
---	---	---

2 Fill in the table to describe and name each three-dimensional figure.

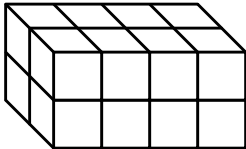
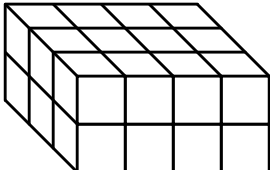
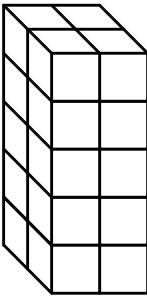
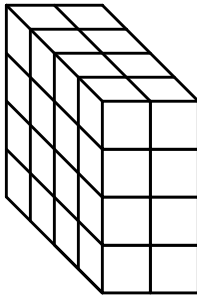
	Faces	Edges	Vertices	Shape Name
ex 	6	12	8	cube
a 				
b 				
c 				
d 				
e 				
f 				

NAME _____

DATE _____

Surface Area & Volume

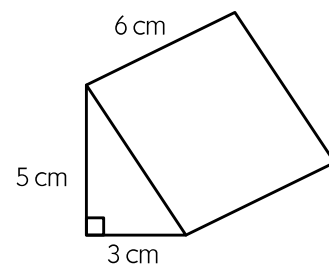
1 Each figure below is built out of centimeter cubes. Find the surface area and volume of each one.

ex		a	
			
Surface Area	Volume	Surface Area	Volume
$2 \times 2 \times 2 = 8$ $4 \times 2 \times 4 = 32$ $8 + 32 = 40 \text{ sq. cm.}$	$2 \times 2 \times 4 = 16$ 16 cubic cm.		
b		c	
			
Surface Area	Volume	Surface Area	Volume



CHALLENGE

2 Find the volume of this triangular prism.



NAME _____

DATE _____

★ Independent Worksheet 3



INDEPENDENT WORKSHEET

Constructing Polygons

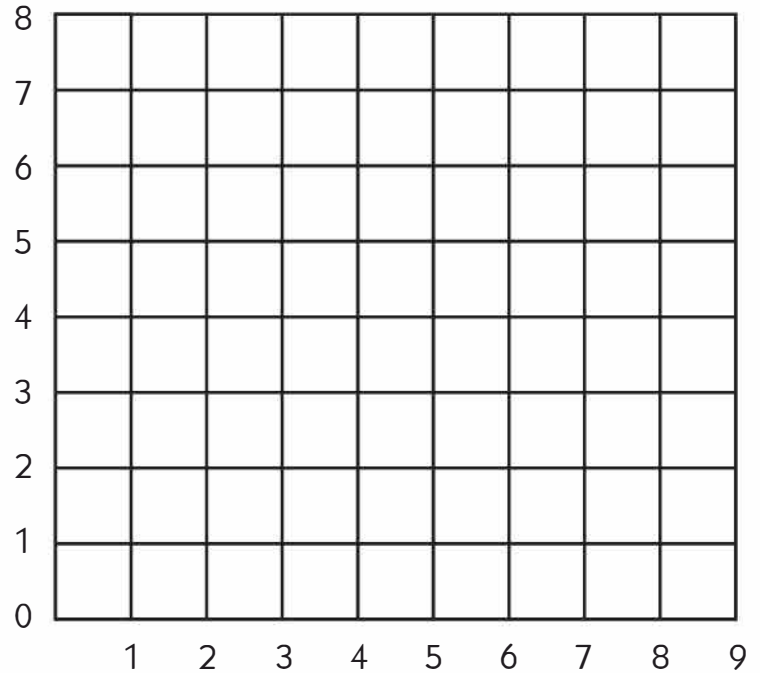
1a Draw and label the following points on the coordinate grid.

A (2, 2) B (5, 7) C (8, 4)

b Draw the following line segments to connect the points on the grid.

\overline{AB} \overline{BC} \overline{CA}

c What is the name of the polygon you just drew?



d Write 2 geometric observations about this polygon.

Constructing Polygons (cont.)

2a Draw and label the following points on the coordinate grid.

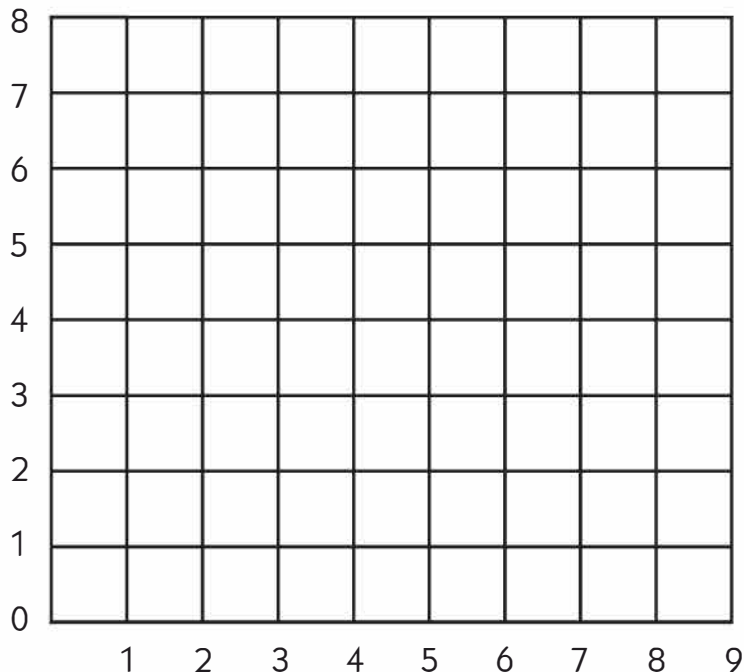
A (1,2) B (3,5) C (8,5) D (6,2)

b What shape will you get when you connect the points with line segments? How do you know?

c Draw the following line segments to connect the points on the grid.

\overline{AB} \overline{BC} \overline{CD} \overline{DA}

d Ryan says that this polygon is a rhombus. Do you agree? Why or why not?



e Write 2 geometric observations about this polygon.