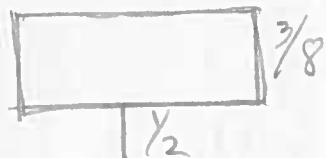


Name \_\_\_\_\_ Date \_\_\_\_\_

1. The length of a flowerbed is 4 times as long as its width. If the width is  $\frac{3}{8}$  meter, what is the area?



$$\frac{3}{8} \times 4 = \frac{12}{8} = 1\frac{1}{2} \quad l = 1\frac{1}{2}$$

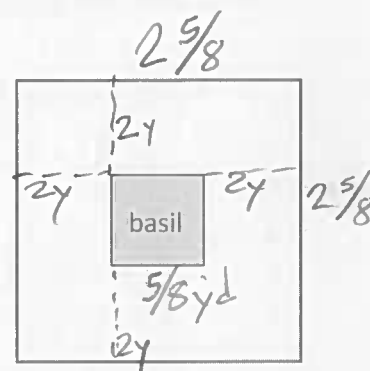
$$1\frac{1}{2} \times \frac{3}{8} = \frac{3}{2} \times \frac{3}{8} = \frac{9}{16} \text{ m}^2$$

The area is  $\frac{9}{16} \text{ m}^2$

2. Mrs. Johnson grows herbs in square plots. Her basil plot measures  $\frac{5}{8}$  yd on each side.

- a. Find the total area of the basil plot.

$$\frac{5}{8} \times \frac{5}{8} = \frac{25}{64} \text{ yd}^2$$



The area is  $\frac{25}{64} \text{ yd}^2$

- b. Mrs. Johnson puts a fence around the basil. If the fence is 2 ft from the edge of the garden on each side, what is the perimeter of the fence in feet?

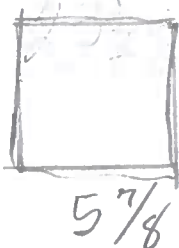
$$5\frac{7}{8} \times 4 = 20 + \frac{28}{8} = 23\frac{1}{2} \text{ ft}$$

$$\frac{5}{8} \times 3 = \frac{15}{8} = 1\frac{7}{8}$$

1 ft = 3 y.

The perimeter in feet is  $23\frac{1}{2} \text{ ft}$

c. What is the total area, in square feet, that the fence encloses?



$$5\frac{7}{8} \times 5\frac{7}{8} = 25 + \frac{35}{8} + \frac{35}{8} + \frac{49}{64}$$

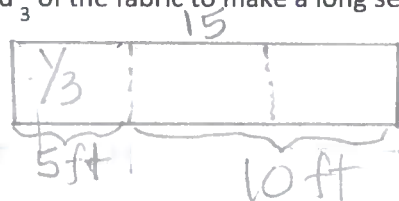
$$33 + \frac{6}{8} + \frac{49}{64} =$$

$$33 + \frac{48}{64} + \frac{49}{64} = 33 \frac{97}{64} =$$

$$34 \frac{33}{64} \text{ ft}^2$$

5	5	$\frac{7}{8}$
25	$\frac{35}{8}$	$\frac{35}{8}$
$\frac{7}{8}$	$\frac{35}{8} = 4\frac{3}{8}$	$\frac{49}{64}$

3. Janet bought 5 yards of fabric  $2\frac{1}{4}$ -feet wide to make curtains. She used  $\frac{1}{3}$  of the fabric to make a long set of curtains and the rest to make 4 short sets.  $5y = 15 \text{ ft}$



a. Find the area of the fabric she used for the long set of curtains.

1st  $\frac{1}{3} \times 15 = \frac{15}{3} = 5$

2nd  $5 \times 2\frac{1}{4} = 10 + \frac{5}{4} = 12\frac{1}{4} \text{ ft}^2$

Janet used  $12\frac{1}{4} \text{ ft}^2$

b. Find the area of the fabric she used for each of the short sets.

$15 - 5 = 10 \text{ ft}$

1st  $2\frac{1}{4} \times 10 = \frac{9}{4} \times 10 = \frac{90}{4} = 22\frac{2}{4} = 22\frac{1}{2} \text{ ft}^2$

2nd  $22\frac{1}{2} \div 4 = \frac{45}{2} \div 4 = \frac{45}{2} \times \frac{1}{4} = \frac{45}{8} = 5\frac{5}{8}$

Each short set is  $5\frac{5}{8} \text{ ft}^2$

4. Some wire is used to make 3 rectangles: A, B, and C. Rectangle B's dimensions are  $\frac{3}{5}$  cm larger than Rectangle A's dimensions, and Rectangle C's dimensions are  $\frac{3}{5}$  cm larger than Rectangle B's dimensions. Rectangle A is 2 cm by  $3\frac{1}{5}$  cm.

- a. What is the total area of all three rectangles?

$$A = 2 \times 3\frac{1}{5} = 6 + \frac{2}{5} = \boxed{6\frac{2}{5}}$$

$$B = 2\frac{3}{5} \times 3\frac{4}{5} = 6 + \left(\frac{8}{5} + \frac{9}{5}\right) + \frac{12}{25} = 9 + \frac{2}{5} + \frac{12}{25} = \boxed{9\frac{22}{25}}$$

$$C = 3\frac{1}{5} \times 4\frac{2}{5} = 12 + \left(\frac{6}{5} + \frac{4}{5}\right) + \frac{2}{25} = \boxed{14\frac{2}{25}}$$

$$6\frac{2}{5} + 9\frac{22}{25} + 14\frac{2}{25} = \boxed{29}$$

The total area of the three rectangles is  $29\text{ cm}^2$

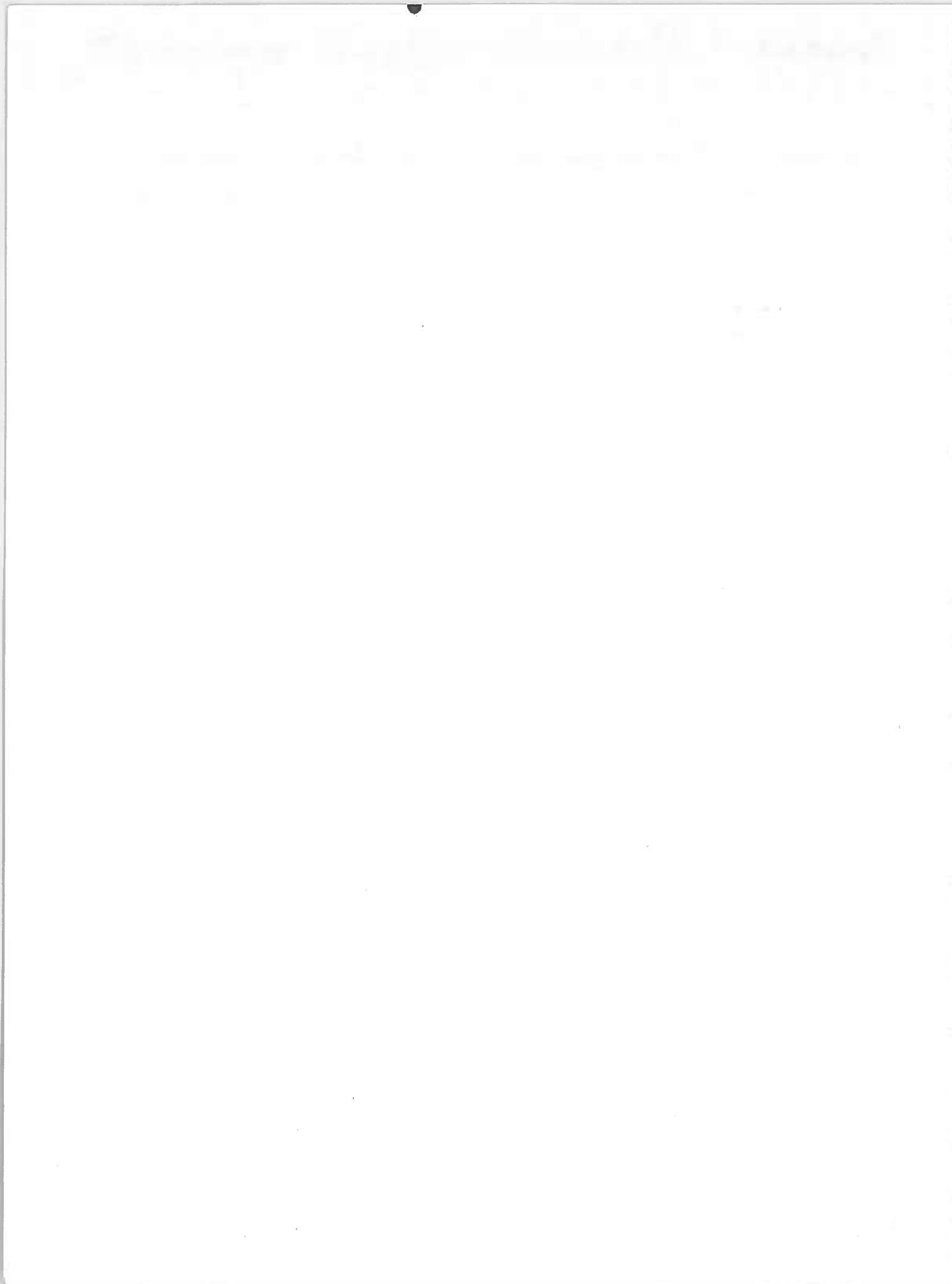
- b. If a 40-cm coil of wire was used to form the rectangles, how much wire is left?

Perimeter of A  $3\frac{1}{5} + 3\frac{1}{5} + 2 + 2 = \boxed{10\frac{2}{5}}$   
 Perimeter of B  $3\frac{4}{5} + 3\frac{4}{5} + 2\frac{3}{5} + 2\frac{3}{5} = 10\frac{14}{5} = \boxed{12\frac{4}{5}}$   
 Perimeter of C  $4\frac{2}{5} + 4\frac{2}{5} + 3\frac{1}{5} + 3\frac{1}{5} = 14\frac{6}{5} = \boxed{15\frac{1}{5}}$   

$$10\frac{2}{5} + 12\frac{4}{5} + 15\frac{1}{5} = 37\frac{7}{5} = \boxed{38\frac{2}{5}}$$

$$40 - 38\frac{2}{5} = 2 - \frac{2}{5} = \boxed{1\frac{3}{5}}$$

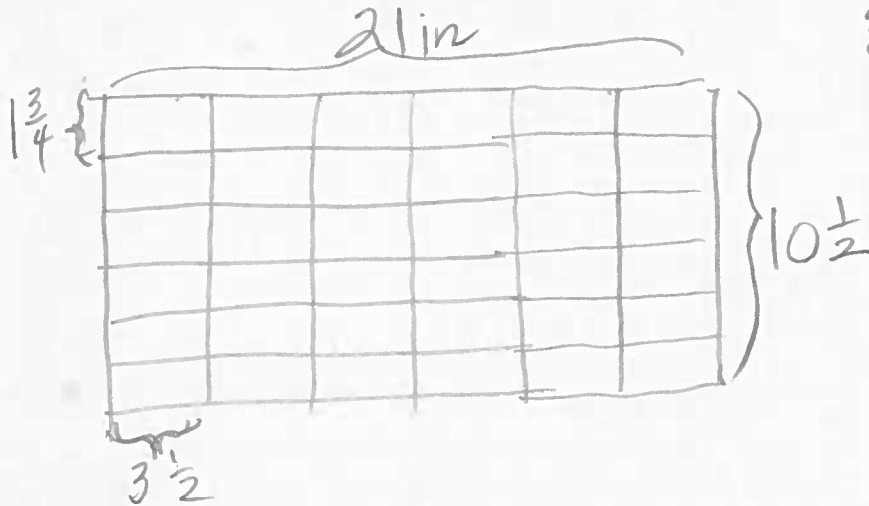
There is  $1\frac{3}{5}$  cm of wire left



Name \_\_\_\_\_

Date \_\_\_\_\_

Wheat grass is grown in planters that are  $3\frac{1}{2}$  inch by  $1\frac{3}{4}$  inch. If there is a  $6 \times 6$  array of these planters with no space between them, what is the area covered by the planters?



$$3\frac{1}{2} \times 6 = 18\frac{6}{2} = \boxed{21}$$

$$1\frac{3}{4} \times 6 = 6\frac{18}{4}$$

$$10\frac{2}{4} = \boxed{10\frac{1}{2}}$$

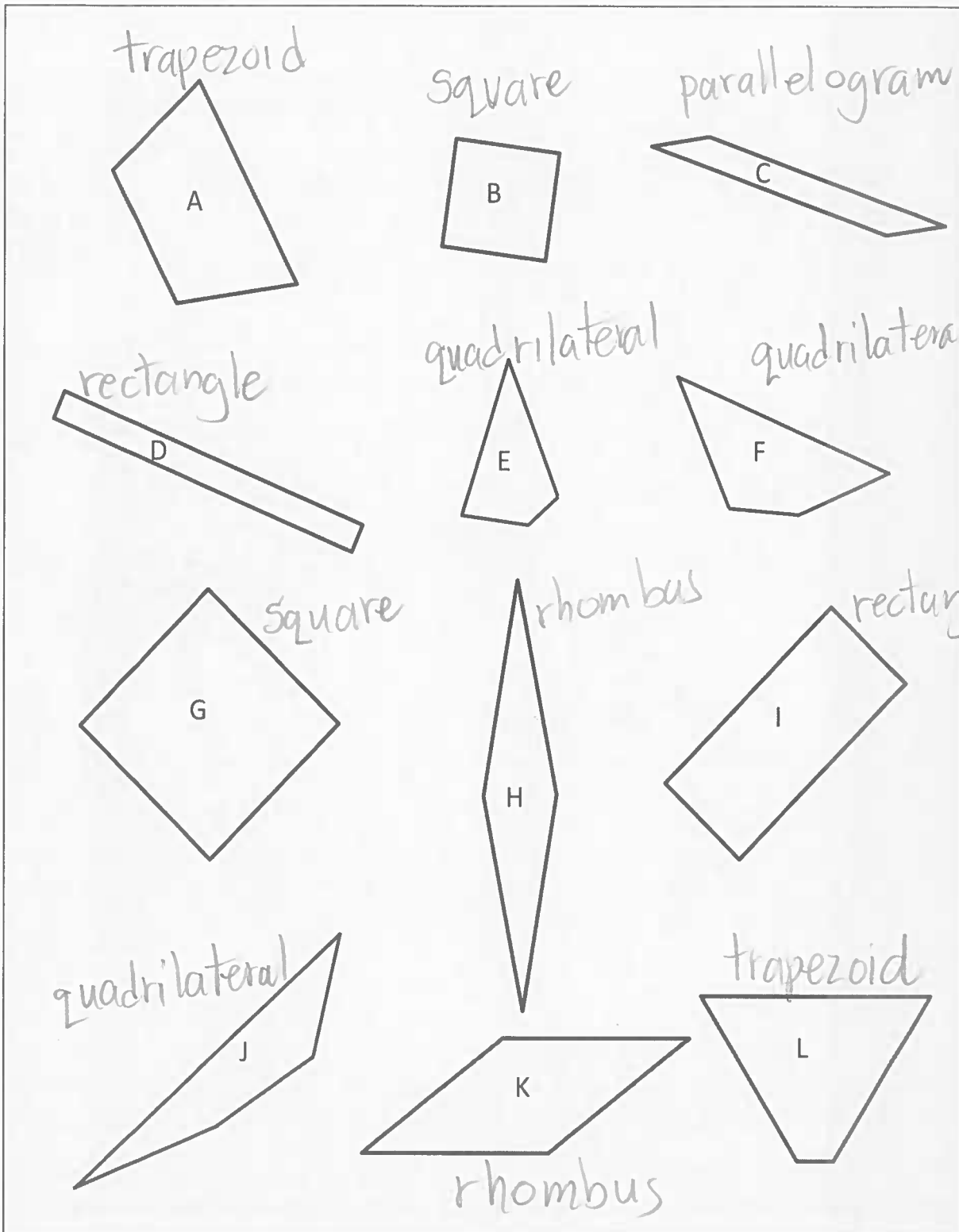
$$A = 21 \text{ in} \times 10\frac{1}{2} \text{ in} =$$

$$210 \frac{21}{2} =$$

$$\boxed{220\frac{1}{2} \text{ in}^2}$$

The area covered by the planters is  $220\frac{1}{2} \text{ in}^2$





shape sheet

1.1

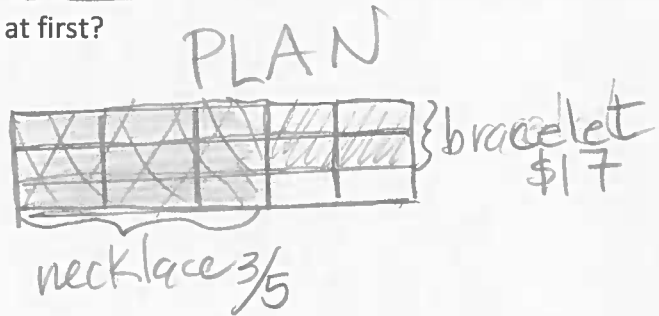
1.2

1.3



Kathy spent 3 fifths of her money on a necklace and 2 thirds of the remainder on a bracelet. If the bracelet cost \$17, how much money did she have at first?

FACTS  
 $\frac{3}{5}$  necklace



$\frac{2}{3}$  of  $\frac{2}{5}$  bracelet  
 \$17

$$17 \div 4 = 4\frac{1}{4} = 4.25$$

$$\$4.25 \times 15 = \$63.75$$

$$\frac{2}{3} \times \frac{2}{5} = \frac{4}{15}$$

$$\frac{4}{15} = 17$$

$$17 \div \frac{4}{15} = 17 \times \frac{15}{4} = \frac{155}{4}$$

$$\begin{array}{r} 3 \\ 17 \\ \times 15 \\ \hline 85 \\ 17 \\ \hline 255 \end{array}$$

$$\begin{array}{r} 63.75 \\ 4 \overline{) 255} \\ \underline{24} \phantom{0} \\ 15 \\ \underline{12} \phantom{0} \\ 30 \\ \underline{28} \phantom{0} \\ 20 \\ \underline{20} \\ 0 \end{array}$$

$$\begin{array}{r} 12 \\ 4.25 \\ \times 15 \\ \hline 2125 \\ 425 \\ \hline 63.75 \end{array}$$

Kathy had \$63.75 at first.

Since  $\frac{4}{15}$  is \$17. Then 17 divided by 4 gives  $\frac{1}{15}$ . Knowing that  $\frac{1}{15}$  is \$4.25 then 4.25 times 15 gives the total amount, \$63.75

Read

Draw

Write



Name \_\_\_\_\_ Date \_\_\_\_\_

1. Draw a pair of parallel lines in each box. Then, use the parallel lines to draw a trapezoid with the following:

<p>a. No right angles.</p> <p>A hand-drawn trapezoid with two vertical parallel sides. The top-left angle is labeled 'obtuse' and <math>100^\circ</math>. The top-right angle is labeled 'acute' and <math>80^\circ</math>. The bottom-left angle is labeled 'obtuse' and <math>100^\circ</math>. The bottom-right angle is labeled 'acute' and <math>80^\circ</math>. Dashed lines indicate the parallel top and bottom bases.</p>	<p>b. Only 1 obtuse angle.</p> <p>A hand-drawn trapezoid with two horizontal parallel sides. The top-left angle is labeled 'acute' and <math>70^\circ</math>. The bottom-left angle is labeled 'obtuse' and <math>140^\circ</math>. The top-right angle is labeled 'right' and <math>90^\circ</math>. The bottom-right angle is labeled 'right' and <math>90^\circ</math>. Dashed lines indicate the parallel top and bottom bases.</p>
<p>c. 2 obtuse angles.</p> <p>A hand-drawn trapezoid with two slanted parallel sides. The top-left angle is labeled 'obtuse' and <math>120^\circ</math>. The top-right angle is labeled 'obtuse' and <math>120^\circ</math>. The bottom-left angle is labeled 'acute' and <math>60^\circ</math>. The bottom-right angle is labeled 'acute' and <math>60^\circ</math>. Dashed lines indicate the parallel left and right sides.</p>	<p>d. At least 1 right angle.</p> <p>A hand-drawn trapezoid with two vertical parallel sides. All four angles are labeled 'right' and <math>90^\circ</math>. Dashed lines indicate the parallel left and right sides.</p>

2. Use the trapezoids you drew to complete the tasks below.
  - a. Measure the angles of the trapezoid with your protractor, and record the measurements on the figures.
  - b. Use a marker or crayon to circle pairs of angles inside each trapezoid with a sum equal to  $180^\circ$ . Use a different color for each pair.

3. List the properties that are shared by all the trapezoids that you worked with today.

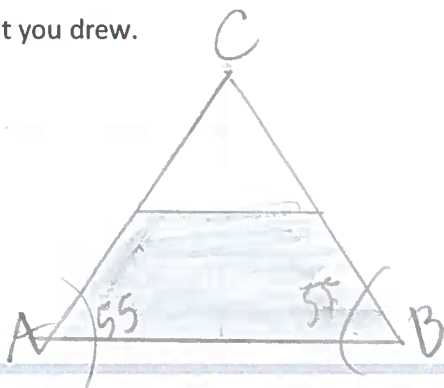
All trapezoids are quadrilaterals.  
 All trapezoids have at least one set of parallel lines

4. When can a quadrilateral also be called a trapezoid?

A quadrilateral that has at least one set of parallel lines is also a trapezoid

5. Follow the directions to draw one last trapezoid.

- a. Draw a segment  $\overline{AB}$  parallel to the bottom of this page that is 5 cm long.
- b. Draw two  $55^\circ$  angles with vertices at  $A$  and  $B$  so that an isosceles triangle is formed with  $\overline{AB}$  as the base of the triangle.
- c. Label the top vertex of your triangle as  $C$ .
- d. Use your set square to draw a line parallel to  $\overline{AB}$  that intersects both  $\overline{AC}$  and  $\overline{BC}$ .
- e. Shade the trapezoid that you drew.

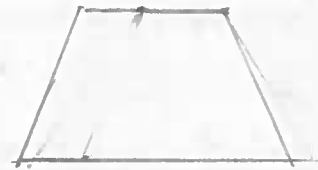
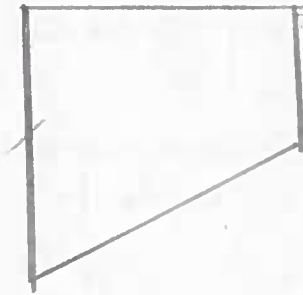


Name \_\_\_\_\_

Date \_\_\_\_\_

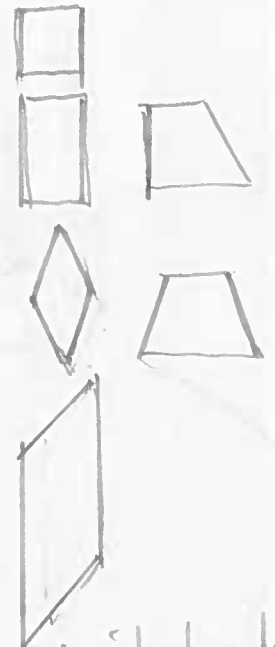
- a. Use a ruler and a set square to draw a trapezoid.

At least one set of parallel lines



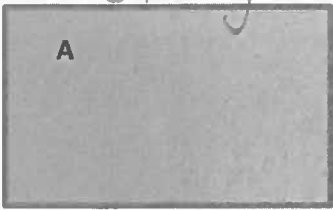
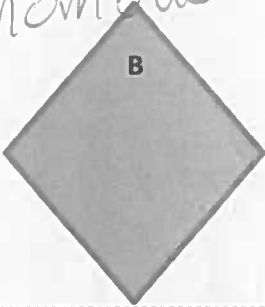
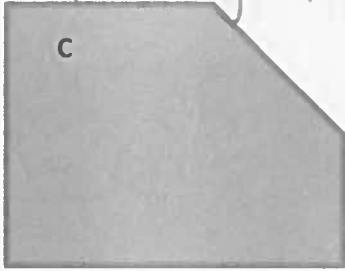
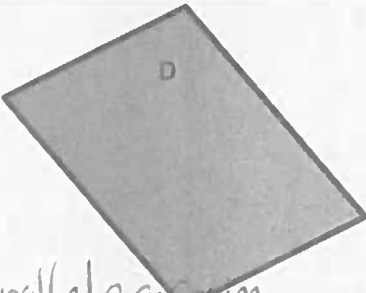
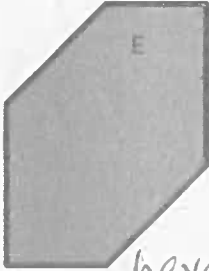

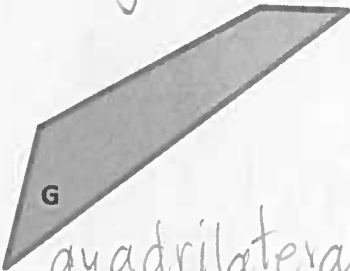
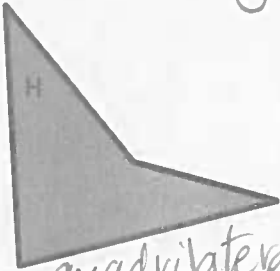
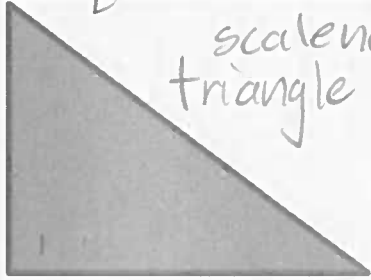
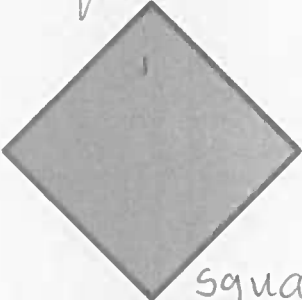
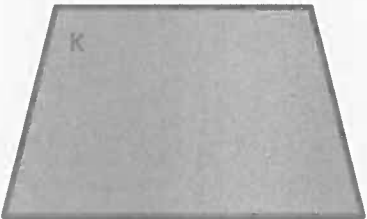
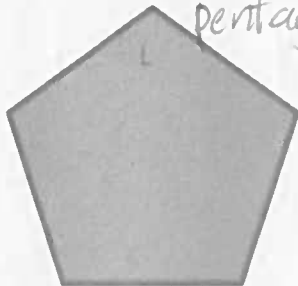
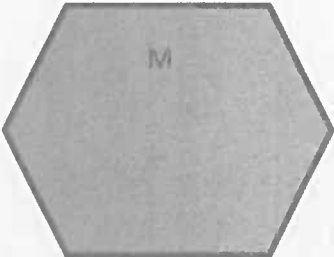
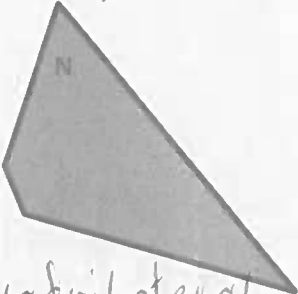
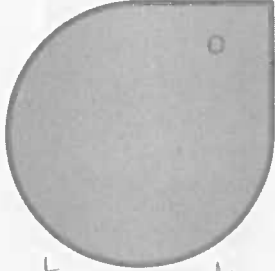
- b. What attribute must be present for a quadrilateral to also be a trapezoid?

For a quadrilateral to be a trapezoid, it needs to have at least one set of parallel lines



quadrilaterals and trapezoids



<p>rectangle</p>  <p>A</p>	<p>rhombus</p>  <p>B</p>	<p>pentagon</p>  <p>C</p>
 <p>D</p> <p>parallelogram</p>	 <p>E</p> <p>hexagon</p>	 <p>F</p> <p>quadrilateral</p>
 <p>G</p> <p>quadrilateral</p>	 <p>H</p> <p>quadrilateral</p>	 <p>I</p> <p>scalene triangle</p>
 <p>J</p> <p>square</p>	 <p>K</p> <p>trapezoid</p>	 <p>L</p> <p>pentagon</p>
 <p>M</p> <p>hexagon</p>	 <p>N</p> <p>quadrilateral</p>	 <p>O</p> <p>not a polygon</p>

collection of polygons

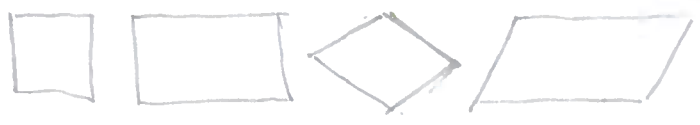
Quadrilaterals 4 sides



Trapezoids At least one set of parallel lines



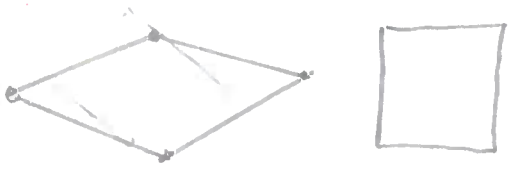
Parallelograms Two sets of parallel lines



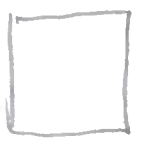
Rectangles 4 right angles



Rhombuses 4 equal sides

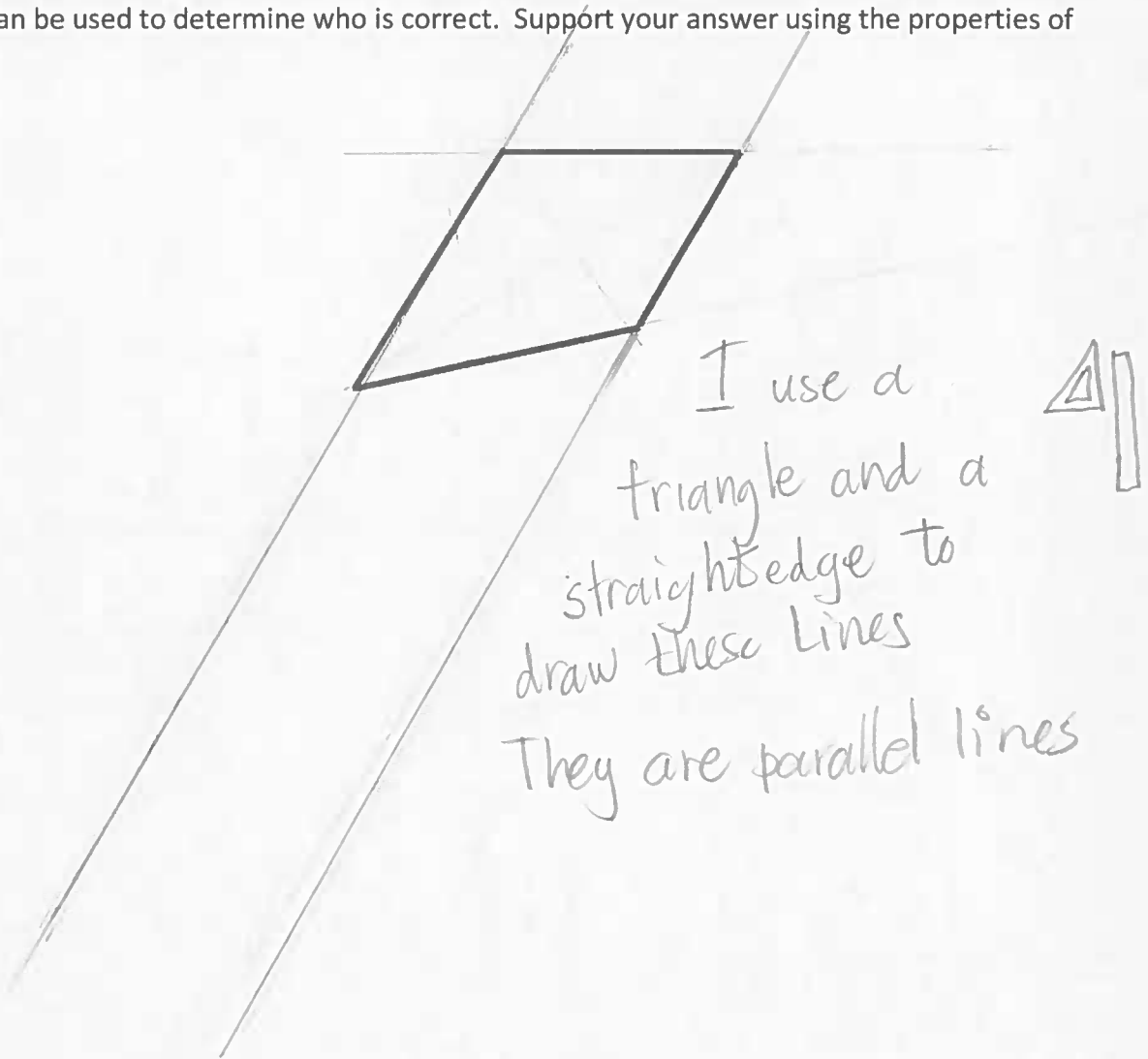


Squares 4 equal sides and 4 right angles





Ava drew the quadrilateral shown and called it a trapezoid. Adam said Ava is wrong. Explain how a set square can be used to determine who is correct. Support your answer using the properties of trapezoids.

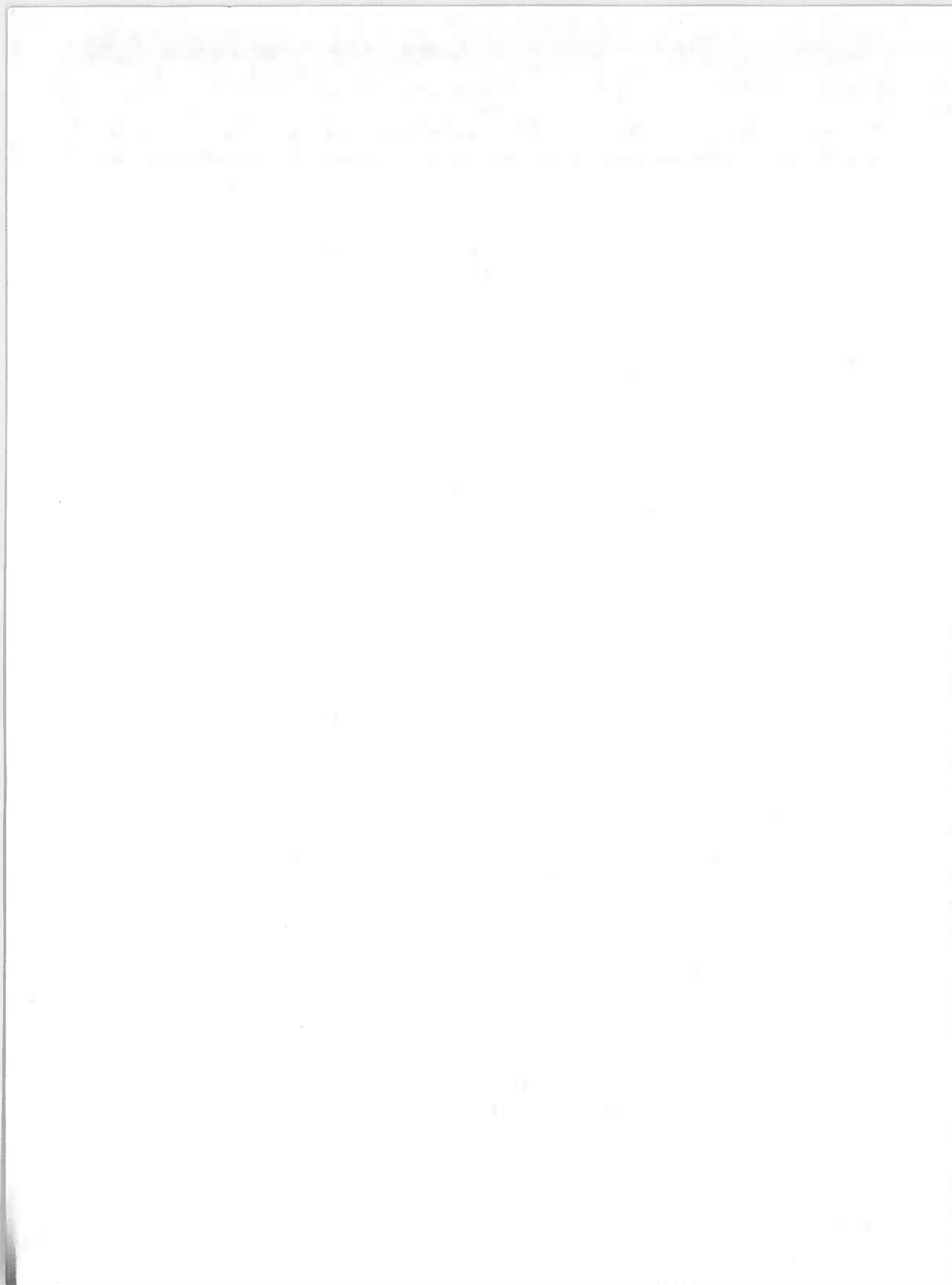


With a set of rulers, one can demonstrate that two opposite lines are parallel by extending them. This quadrilateral is a trapezoid!

Read

Draw

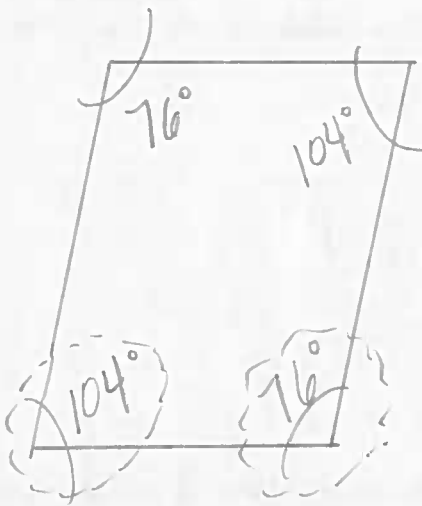
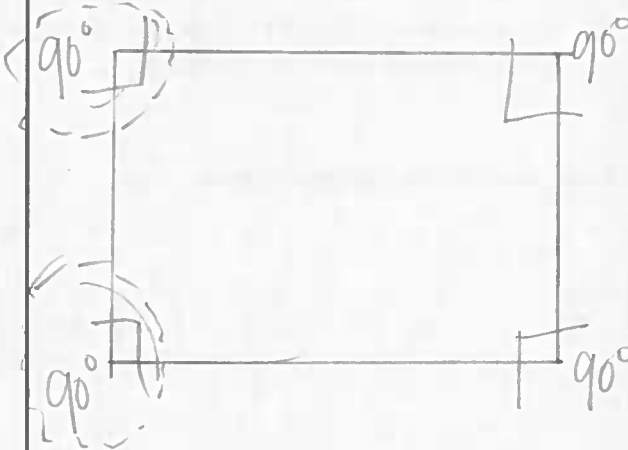
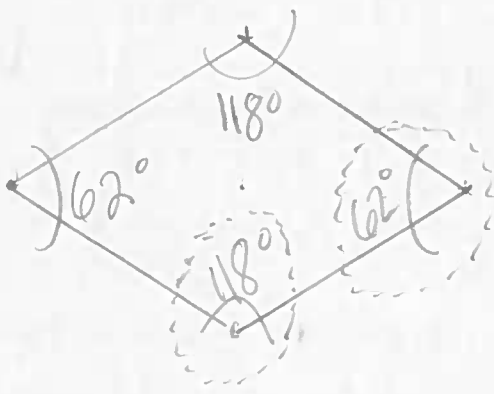
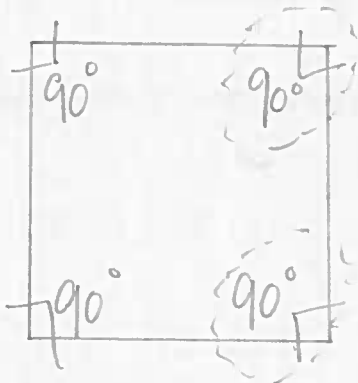
Write



Name \_\_\_\_\_

Date \_\_\_\_\_

1. Draw a parallelogram in each box with the attributes listed.

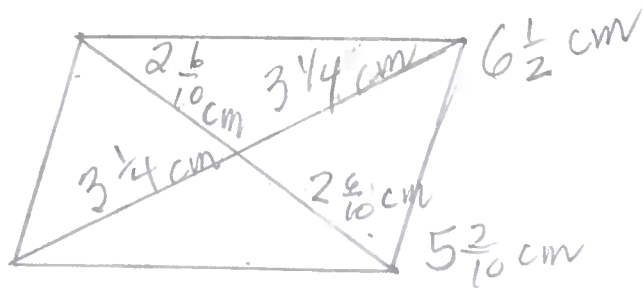
<p>a. No right angles.</p>  <p><math>104 + 76 = 180</math></p>	<p>b. At least 2 right angles.</p>  <p><math>90 + 90 = 180</math></p>
<p>c. Equal sides with no right angles.</p>  <p><math>118 + 62 = 180</math></p>	<p>d. All sides equal with at least 2 right angles.</p>  <p><math>90 + 90 = 180</math></p>

You need a protractor to measure the angles



2. Use the parallelograms you drew to complete the tasks below.
  - a. Measure the angles of the parallelogram with your protractor, and record the measurements on the figures.
  - b. Use a marker or crayon to circle pairs of angles inside each parallelogram with a sum equal to  $180^\circ$ . Use a different color for each pair.

3. Draw another parallelogram below.



- a. Draw the diagonals, and measure their lengths. Record the measurements to the side of your figure.
- b. Measure the length of each of the four segments of the diagonals from the vertices to the point of intersection of the diagonals. Color the segments that have the same length the same color. What do you notice?

- The diagonals bisect each other.  
 Each diagonal cuts the parallelogram in two triangles.
4. List the properties that are shared by all of the parallelograms that you worked with today.

Parallelograms

1) are quadrilaterals

2) have 2 sets of parallel lines

3) have opposite angles equal in measure

4) diagonals bisect each other

5) opposite sides are equal in length

- a. When can a quadrilateral also be called a parallelogram?

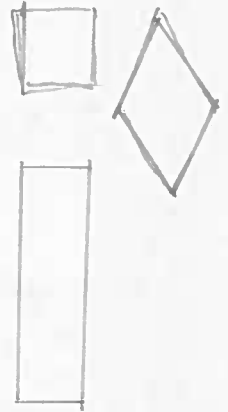
A quadrilateral can be a parallelogram when it has 2 sets of parallel lines

- b. When can a trapezoid also be called a parallelogram?

A trapezoid can be a parallelogram when it has 2 sets of parallel lines

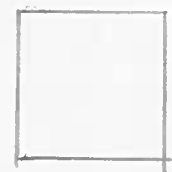
Name \_\_\_\_\_ Date \_\_\_\_\_

1. Draw a parallelogram. *2 sets of parallel lines*

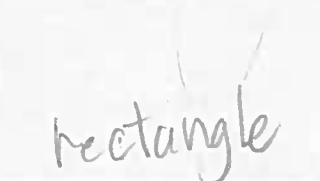


2. When is a trapezoid also called a parallelogram?

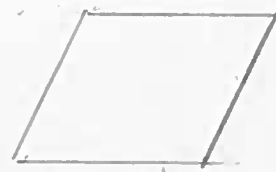
*A trapezoid is a parallelogram when it has two sets of parallel lines*



*square*

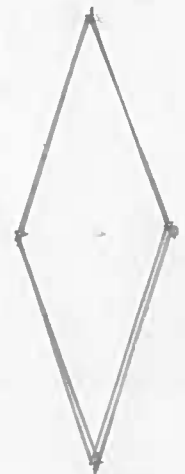


*rectangle*



*parallelogram*

*rhombus*



1917

How many 2-inch cubes are needed to build a rectangular prism that measures 10 inches by 14 inches by 6 inches?

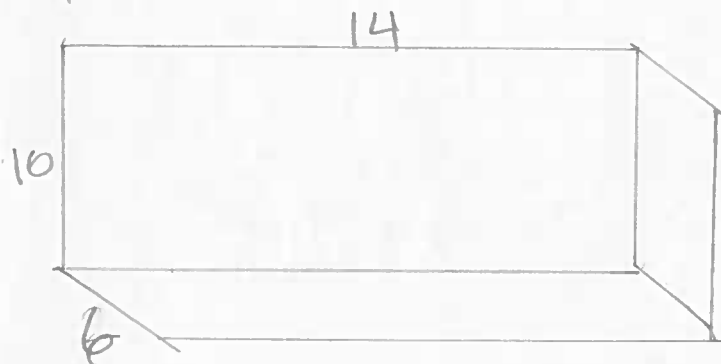
$$\text{Volume} = 10 \times 14 \times 6 = 140 \times 6 = \boxed{840 \text{ in}^3}$$

$$\text{Volume of a cube} = 2 \times 2 \times 2 = \boxed{8 \text{ in}^3}$$

$$840 \div 8 = \boxed{105 \text{ cubes}}$$

$$\begin{array}{r} 105 \\ 8 \overline{) 840} \\ \underline{8} \phantom{0} \\ 040 \\ \underline{40} \\ 0 \end{array}$$

105 cubes are needed to build that rectangular prism



Read

Draw

Write

THE UNIVERSITY OF CHICAGO

PHILOSOPHY DEPARTMENT

PHILOSOPHY 101

LECTURE NOTES

BY [Name]

DATE [Date]

TOPIC [Topic]

SECTION [Section]

LECTURER [Lecturer]

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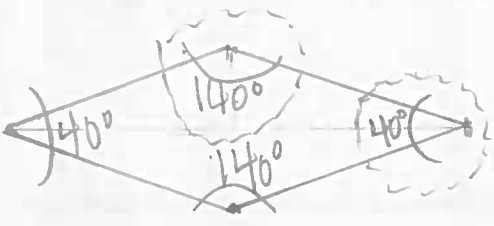
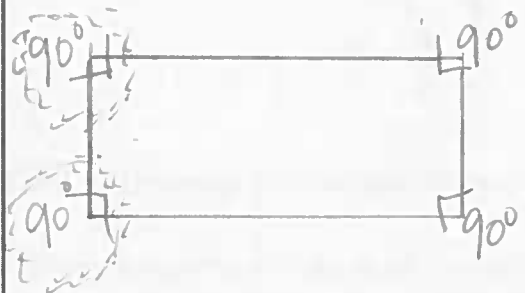
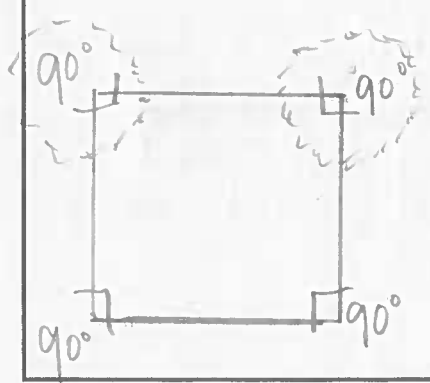
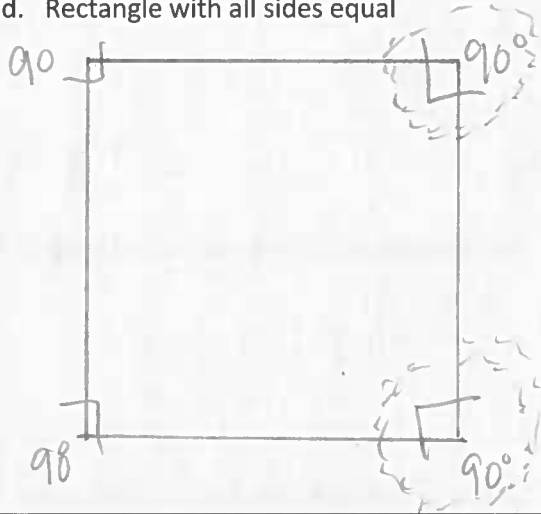
LECTURER [Lecturer]



Name \_\_\_\_\_

Date \_\_\_\_\_

1. Draw the figures in each box with the attributes listed.

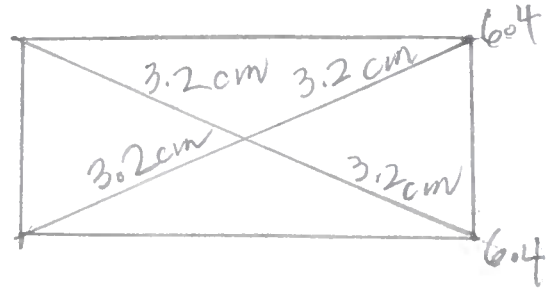
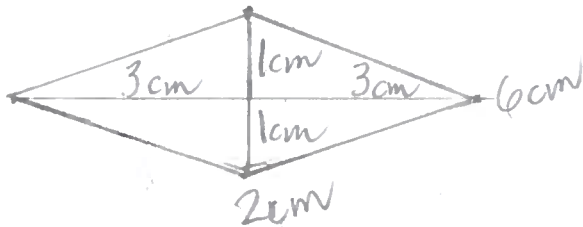
<p>a. Rhombus with no right angles</p> 	<p>b. Rectangle with not all sides equal</p> 
<p>c. Rhombus with 1 right angle</p> 	<p>d. Rectangle with all sides equal</p> 

2. Use the figures you drew to complete the tasks below.

- Measure the angles of the figures with your protractor, and record the measurements on the figures.
- Use a marker or crayon to circle pairs of angles inside each figure with a sum equal to  $180^\circ$ . Use a different color for each pair.

vertex = corner

3. Draw a rhombus and a rectangle below.



- Draw the diagonals, and measure their lengths. Record the measurements on the figure.
- Measure the length of each segment of the diagonals from the vertex to the intersection point of the diagonals. Using a marker or crayon, color segments that have the same length. Use a different color for each different length.

4. a. List the properties that are shared by all of the rhombuses that you worked with today.

Rhombuses  
 1) They have 4 equal sides  
 2) Their opposite sides are parallel

3) Their diagonals are perpendicular bisectors  
 4) Their consecutive angles sum  $180^\circ$

b. List the properties that are shared by all of the rectangles that you worked with today.

Rectangles  
 1) They have 4 right angles  
 2) Their opposite sides are parallel and equal in length

3) Their diagonals are equal and bisect each other

c. When can a trapezoid also be called a rhombus?

A trapezoid is a rhombus when it has 4 equal sides

d. When can a parallelogram also be called a rectangle?

A parallelogram is a rectangle when it has 4 right angles

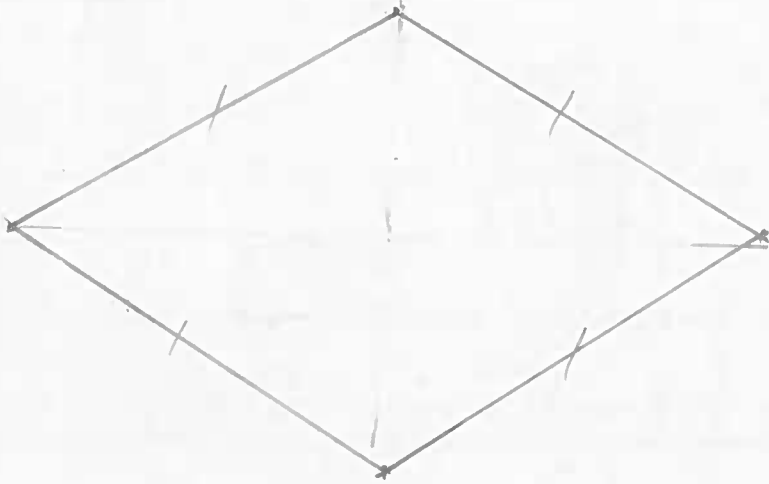
e. When can a quadrilateral also be called a rhombus?

A quadrilateral is a rhombus when it has 4 equal sides

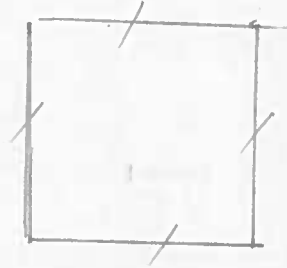
Name \_\_\_\_\_

Date \_\_\_\_\_

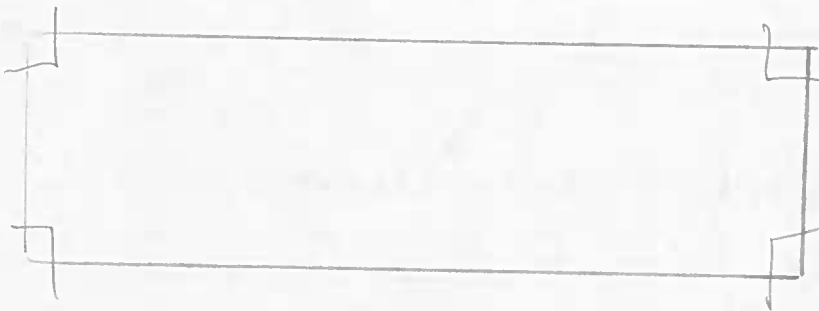
1. Draw a rhombus.



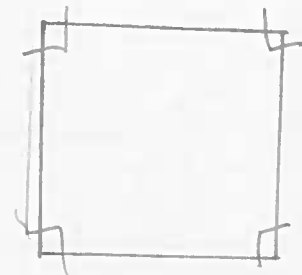
four equal  
sides



2. Draw a rectangle.



four right  
angles





The teacher asked her class to draw parallelograms that are rectangles. Kylie drew Figure 1, and Zach drew Figure 2. Zach agrees that Kylie has drawn a parallelogram but says that it is not a rectangle. Is he correct? Use properties to justify your answer.

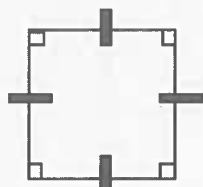


Figure 1

Kylie

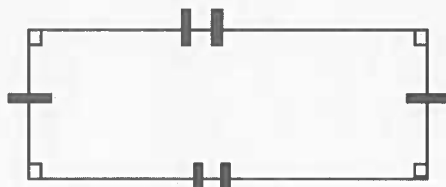


Figure 2

Zach

Zach is not correct. Kylie's figure is a parallelogram and a rectangle. Kylie's figure has 2 sets of parallel lines, and 4 right angles.

A parallelogram has 2 sets of parallel lines  
A rectangle has 4 right angles

Read

Draw

Write

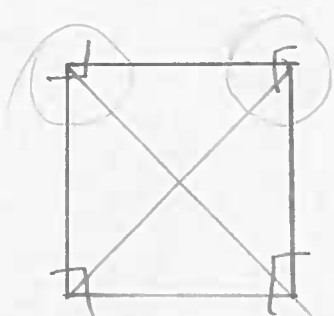
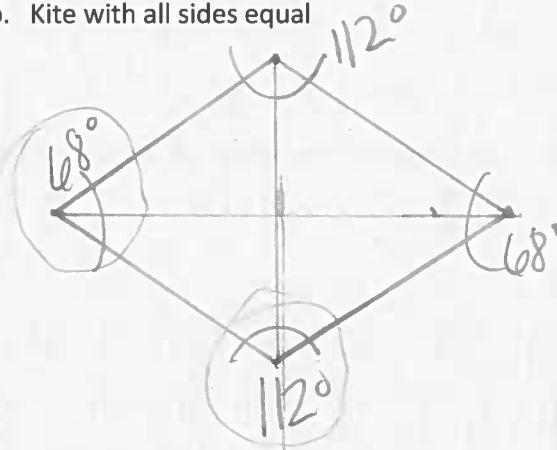
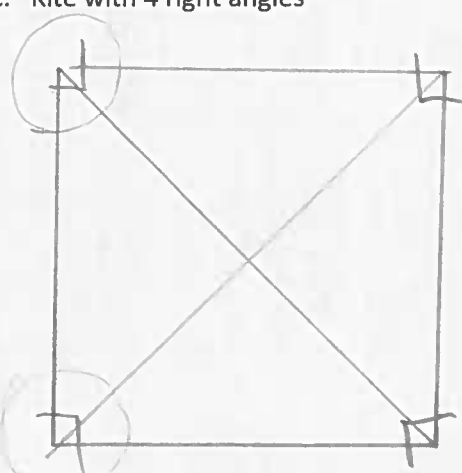
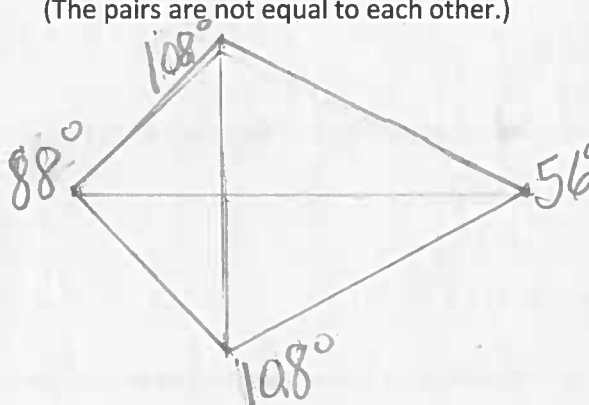
THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
5800 S. UNIVERSITY AVENUE  
CHICAGO, ILLINOIS 60637

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Name \_\_\_\_\_

Date \_\_\_\_\_

1. Draw the figures in each box with the attributes listed. If your figure has more than one name, write it in the box.

<p>a. Rhombus with 2 right angles</p> 	<p>b. Kite with all sides equal</p> 
<p>c. Kite with 4 right angles</p> 	<p>d. Kite with 2 pairs of adjacent sides equal (The pairs are not equal to each other.)</p>  <div style="text-align: right; margin-top: 20px;"> <p>114 114 85 ----- 180</p> </div>

2. Use the figures you drew to complete the tasks below.

- Measure the angles of the figures with your protractor, and record the measurements on the figures.
- Use a marker or crayon to circle pairs of angles that are equal in measure, inside each figure. Use a different color for each pair.

3. a. List the properties shared by all of the squares that you worked with today.

Squares  
Squares have 4 equal sides  
They have 4 right angles  
Their opposite sides are parallel

Their diagonals  
are perpendicular  
bisectors

- b. List the properties shared by all of the kites that you worked with today.

Kites are quadrilaterals  
Kites have 2 sets of adjacent sides  
that are equal in length  
They have at least one set of opposite angles  
that are equal in measure  
Diagonals form right angles and one bisect the other

- c. When can a rhombus also be called a square?

A rhombus is a square when it has  
4 right angles



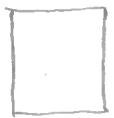
- d. When can a kite also be called a square?

A kite is a square when it has  
4 equal sides and 4 right angles



- e. When can a trapezoid also be called a kite?

A trapezoid is a kite when  
it has 2 pairs of equal  
adjacent sides



trapezoids  
and  
Kites



Name \_\_\_\_\_

Date \_\_\_\_\_

1. List the property that must be present to call a rectangle a square.

A rectangle is a square when it has 4 equal sides

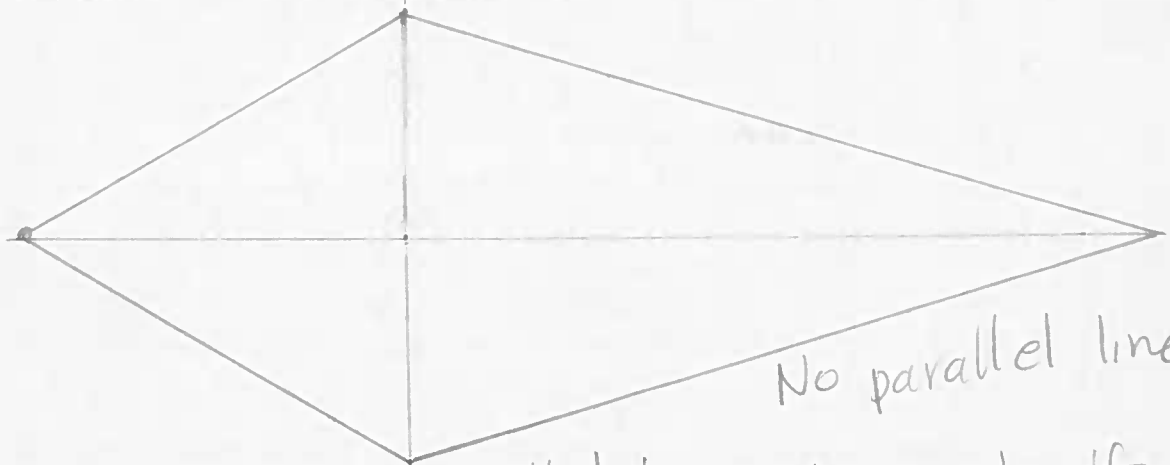
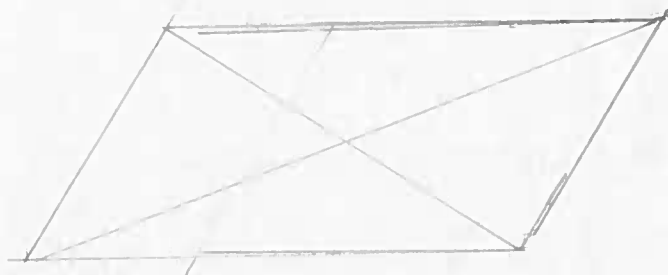


rectangle  
and  
square

2. Excluding rhombuses and squares, explain the difference between parallelograms and kites.

Parallelograms have 2 sets of parallel lines, no adjacent equal lines, and their diagonals do not form right angles.

2 sets of  
parallel lines

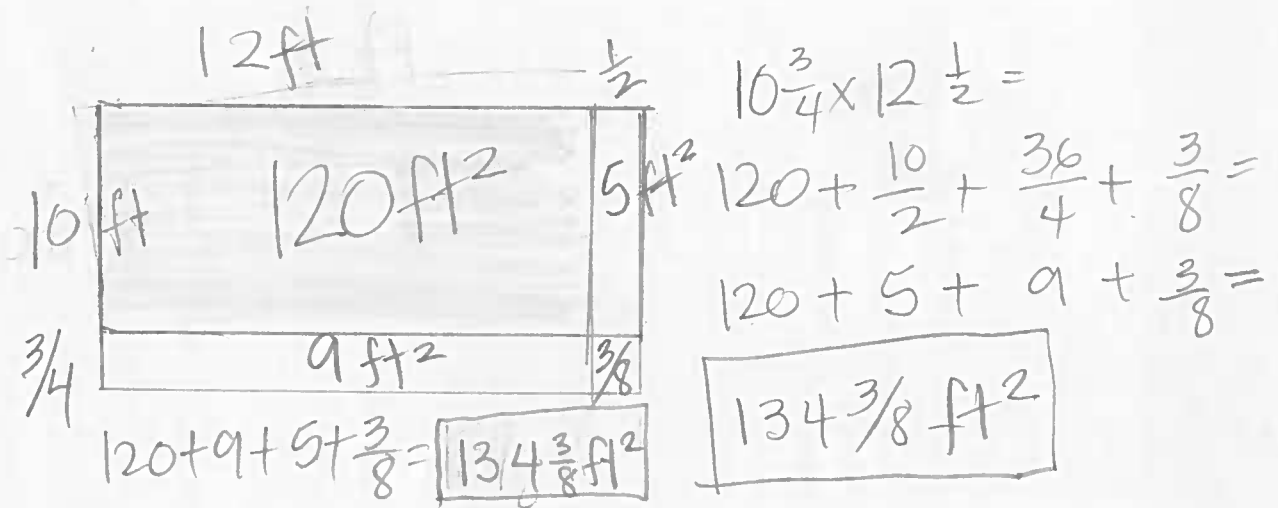


No parallel lines

Kites have no parallel lines; two sets of adjacent equal in length lines, and their diagonals form right angles



Nita buys a rug that is  $10\frac{3}{4}$  feet  $\times$   $12\frac{1}{2}$  feet. What is the area of the rug? Show your thinking with an area model and a multiplication sentence.




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Read

Draw

Write

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

1962

PHYSICS 551

Name \_\_\_\_\_

Date \_\_\_\_\_

1. True or false. If the statement is false, rewrite it to make it true.

	T	F
a. All trapezoids are quadrilaterals.	✓	
b. All parallelograms are rhombuses. Some parallelograms are rhombuses		✓
c. All squares are trapezoids.	✓	
d. All rectangles are squares. All squares are rectangles		✓
e. Rectangles are always parallelograms.	✓	
f. All parallelograms are trapezoids.	✓	
g. All rhombuses are rectangles. Some rhombuses are rectangles		✓
h. Kites are never rhombuses. Some kites are rhombuses		✓
i. All squares are kites.	✓	
j. All kites are squares. Some kites are squares		✓
k. All rhombuses are squares. All squares are rhombuses		✓

2. Fill in the blanks.

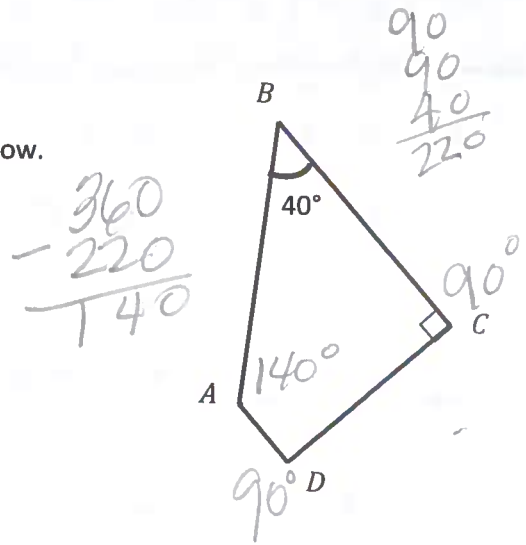
a.  $ABCD$  is a trapezoid. Find the measurements listed below.

$\angle A = \underline{140^\circ}$

$\angle D = \underline{90^\circ}$

What other names does this figure have?

quadrilateral



b.  $RECT$  is a rectangle. Find the measurements listed below.

Line  $TE = \underline{26 \text{ in}}$

Line  $RC = \underline{26 \text{ in}}$

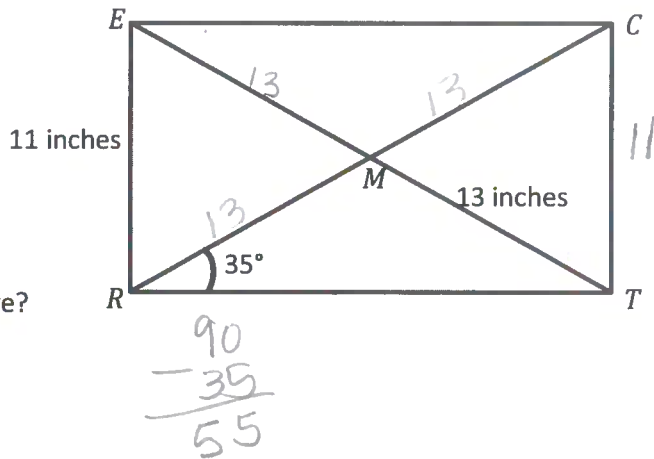
Line  $CT = \underline{11 \text{ in}}$

$\angle ERM = \underline{55^\circ}$

$\angle CTR = \underline{90^\circ}$

What other names does this figure have?

quadrilateral  
trapezoid  
rectangle



c.  $PARL$  is a parallelogram. Find the measurements listed below.

Line  $AL = \underline{16 \text{ cm}}$

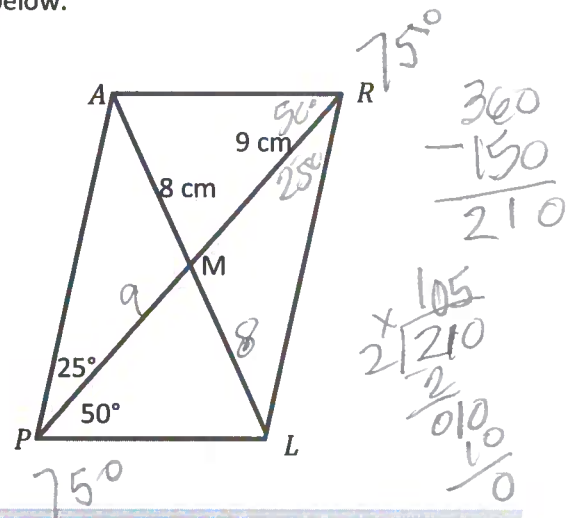
Line  $PR = \underline{18 \text{ cm}}$

$\angle ARL = \underline{75^\circ}$

$\angle PAR = \underline{105^\circ}$

$\angle RLP = \underline{105^\circ}$

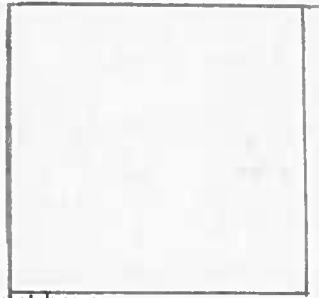
What other names does this figure have?



Name \_\_\_\_\_

Date \_\_\_\_\_

Use your tools to draw a square in the space below. Then, fill in the blanks with an attribute. There is more than one answer to some of these.



- a. Because a square is a kite, it must have \_\_\_\_\_
- b. Because a square is a rhombus, it must have \_\_\_\_\_
- c. Because a square is a rectangle, it must have \_\_\_\_\_
- d. Because a square is a parallelogram, it must have \_\_\_\_\_
- e. Because a square is a trapezoid, it must have \_\_\_\_\_
- f. Because a square is a quadrilateral, it must have \_\_\_\_\_

2 sets of adjacent equal sides

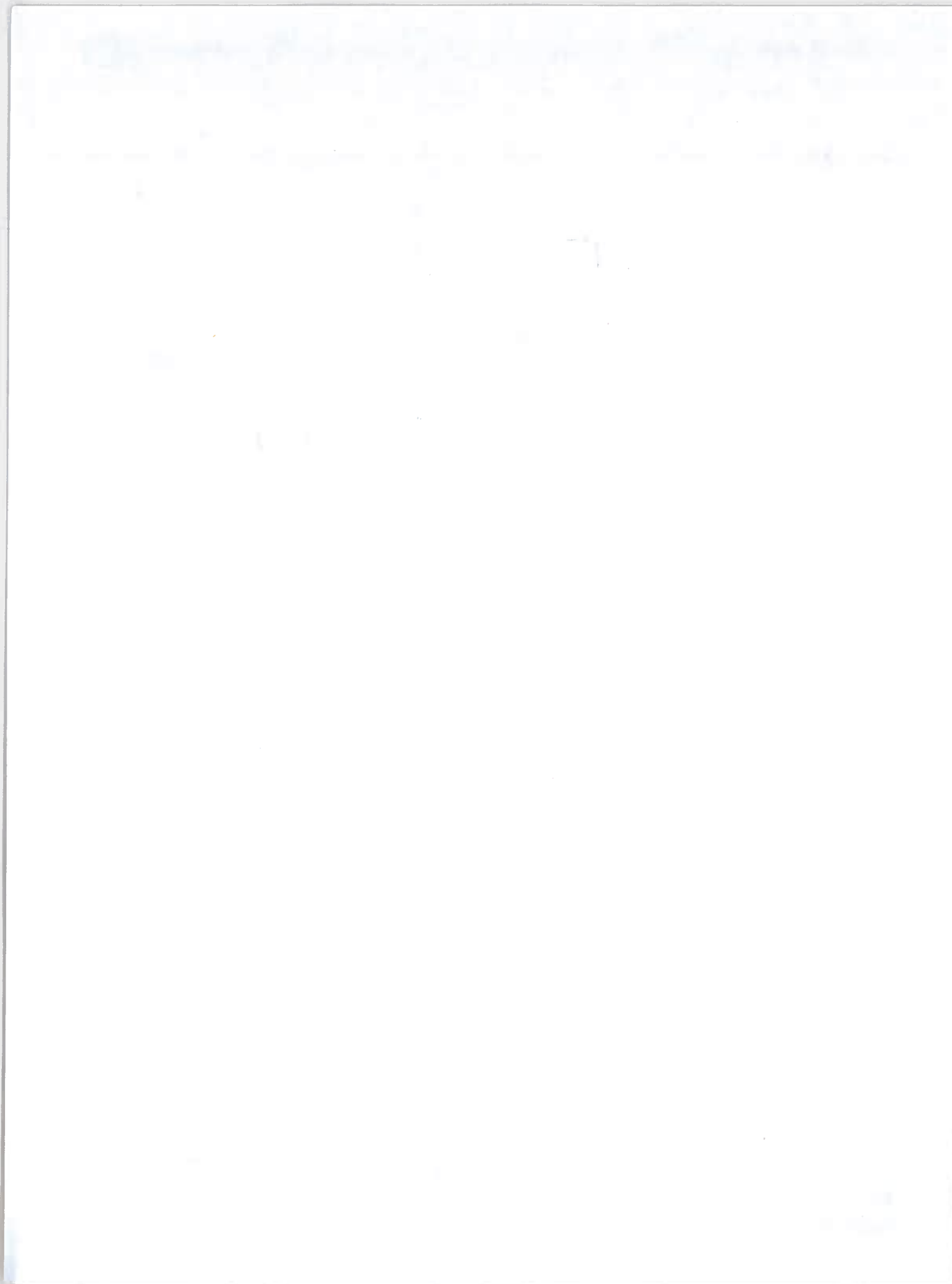
4 equal sides

4 right angles











2 sets of parallel lines

at least one set of parallel lines

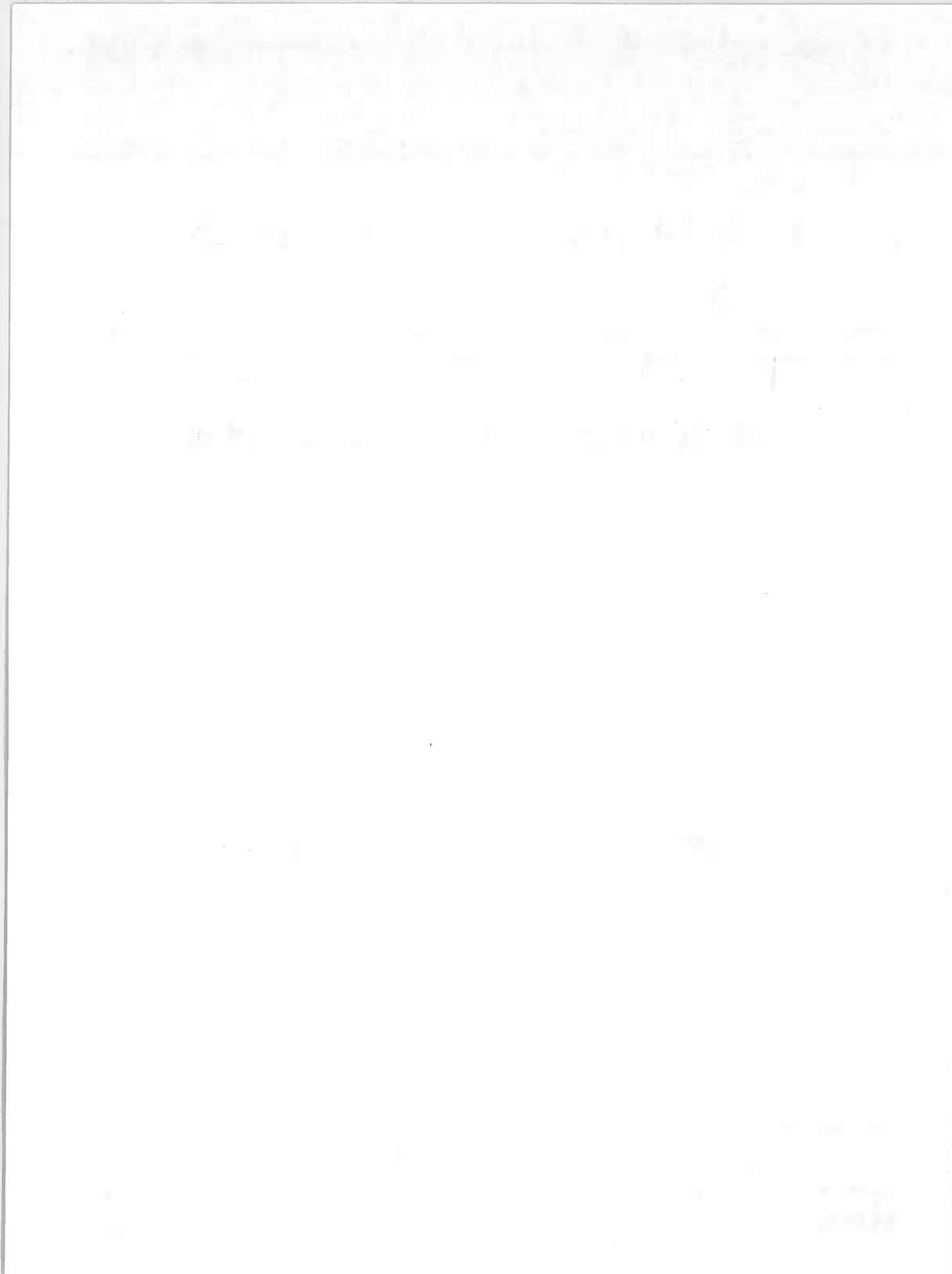
4 sides





 <p><b>Quadrilaterals</b></p> 	 <p><b>Trapezoids</b></p> 
 <p><b>Parallelograms</b></p>	 <p><b>Rectangles</b></p>
 <p><b>Rhombuses</b></p>	 <p><b>Kites</b></p>
 <p><b>Squares</b></p>	 <p><b>Polygons</b></p>

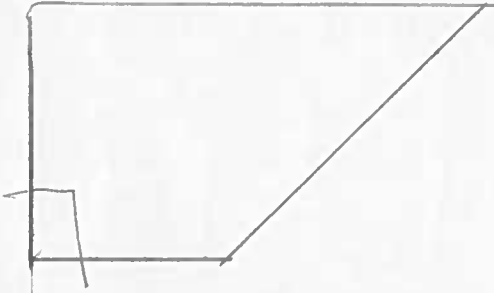
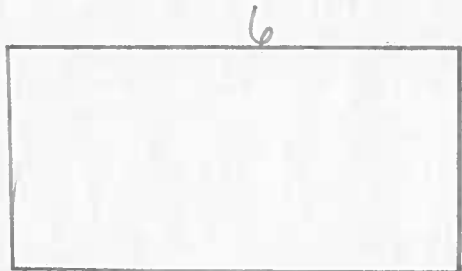

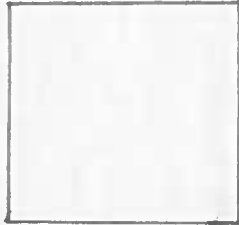
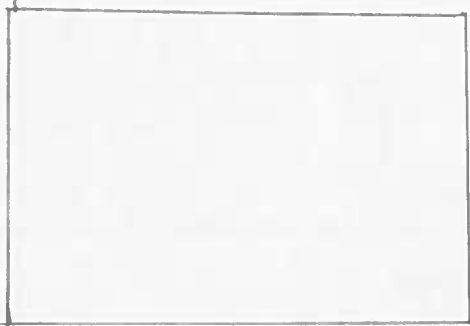
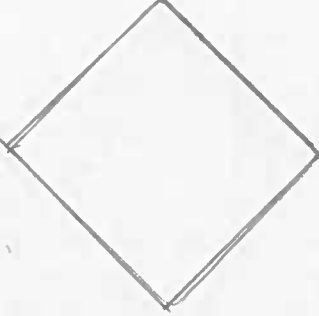
shape name cards



Name \_\_\_\_\_

Date \_\_\_\_\_

1. Write the number on your task card and a summary of the task in the blank. Then, draw the figure in the box. Label your figure with as many names as you can. Circle the most specific name.

<p>Task # ____: _____</p> 	<p>Task # ____: _____</p> 
<p>Task # ____: _____</p> 	<p>Task # ____: _____</p> 
<p>Task # ____: _____</p> 	<p>Task # ____: _____</p> 

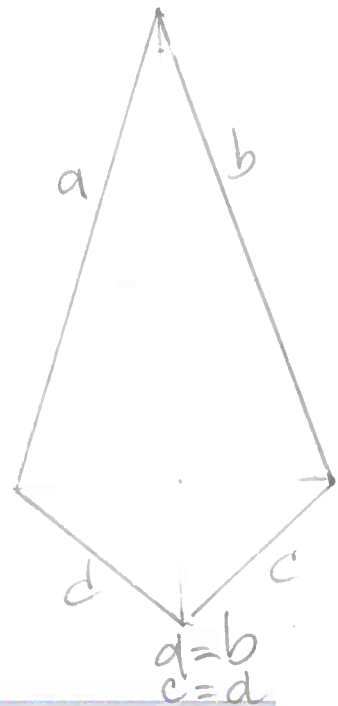
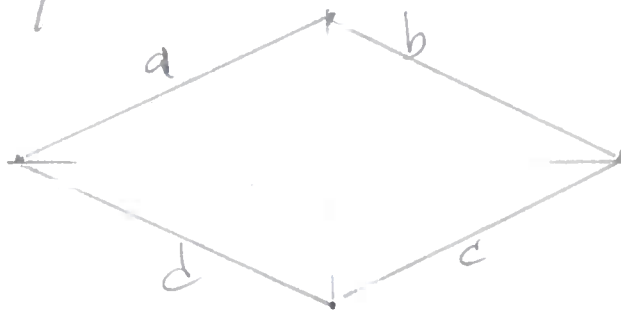
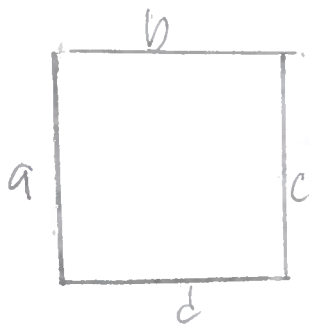
2. John says that because rhombuses do not have perpendicular sides, they cannot be rectangles. Explain his error in thinking.

John forgets that rhombuses are quadrilaterals that have four equal sides. Some rhombuses are squares, and have four right angles. So, some rhombuses are rectangles.



3. Jack says that because kites do not have parallel sides, a square is not a kite. Explain his error in thinking.

Jack's mistake is that squares actually have two sets of consecutive equal in length sides, which makes them members of the Kite family.



$$\underline{a=b} \quad \underline{b=c} \quad \underline{c=d} \quad \underline{d=a}$$

two sets of consecutive sides equal in length

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Use the word bank to fill in the blanks.

trapezoids    parallelograms

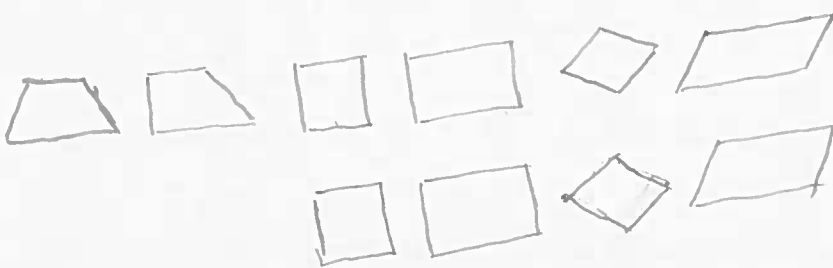
All parallelograms are trapezoids, but not all trapezoids are parallelograms.

2. Use the word bank to fill in the blanks.

kites    rhombuses

All rhombuses are kites, but not all kites are rhombuses.

Trapezoids have at least one set of parallel lines  
 parallelograms have two sets of parallel lines



Trapezoids  
 Parallelograms

