

Set up Quarter 4 Notebook

Save TWO pages for the Table of Contents

The THIRD piece of paper is page 1 - calendar

Name: _____ Date: _____

Topic: _____ Class: _____

Main Ideas/Questions	Notes/Examples																				
Polygon	A polygon is a closed figure formed by three or more line segments , called sides .																				
Classifying Polygons	Polygons can be classified by the number of sides they have. Complete the table below.																				
	<table border="1"> <thead> <tr> <th># of Sides</th> <th>Polygon Name</th> <th># of Sides</th> <th>Polygon Name</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>triangle</td> <td>7</td> <td>heptagon</td> </tr> <tr> <td>4</td> <td>quadrilateral</td> <td>8</td> <td>octagon</td> </tr> <tr> <td>5</td> <td>pentagon</td> <td>9</td> <td>nonagon</td> </tr> <tr> <td>6</td> <td>hexagon</td> <td>10</td> <td>decagon</td> </tr> </tbody> </table>	# of Sides	Polygon Name	# of Sides	Polygon Name	3	triangle	7	heptagon	4	quadrilateral	8	octagon	5	pentagon	9	nonagon	6	hexagon	10	decagon
	# of Sides	Polygon Name	# of Sides	Polygon Name																	
	3	triangle	7	heptagon																	
	4	quadrilateral	8	octagon																	
5	pentagon	9	nonagon																		
6	hexagon	10	decagon																		

Congruent Polygons

- **Congruent polygons** have the same **size** and **shape**
- All **corresponding parts** (**sides** and **angles**) are **congruent**.

Congruency Statements

When polygons are congruent, we can write a **congruency statement**.

A **valid congruency statement** must match all corresponding angles and sides.

Examples

Directions: Identify the congruent parts given the congruency statement.

5. $\Delta WXY \cong \Delta QRS$		6. rhombus $EFGH \cong$ rhombus $JKLM$	
$\angle W \cong$ Q	$\overline{WX} \cong$ QR	$\angle E \cong$ J	$\overline{EF} \cong$ JK
$\angle X \cong$ R	$\overline{XY} \cong$ RS	$\angle L \cong$ G	$\overline{JM} \cong$ EH
$\angle Y \cong$ S	$\overline{WY} \cong$ QS	$\angle H \cong$ M	$\overline{GH} \cong$ LM

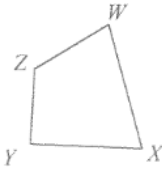
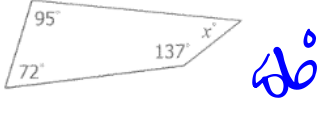
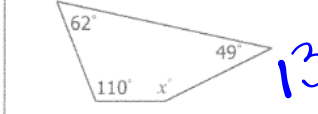
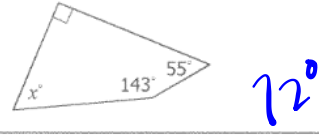
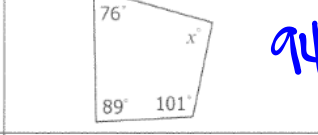
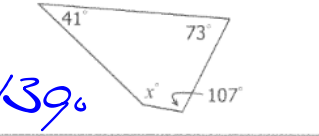
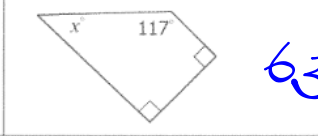
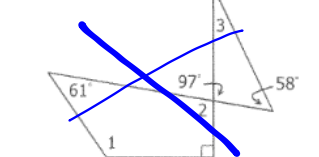
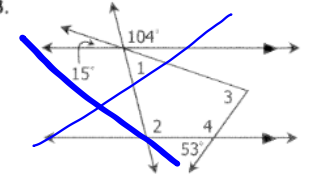
7. $\Delta PQR \cong \Delta TUV$

$m\angle V = 129^\circ$
 $m\angle Q = 21^\circ$
 $m\angle P = 30^\circ$
 $PQ = 24\text{ ft}$
 $UV = 13\text{ ft}$

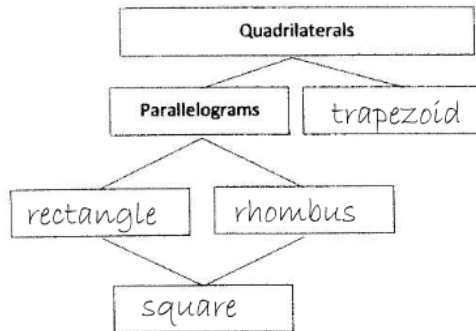
$180 - (129 + 21)$
 $180 - 150$
30

$m\angle V =$

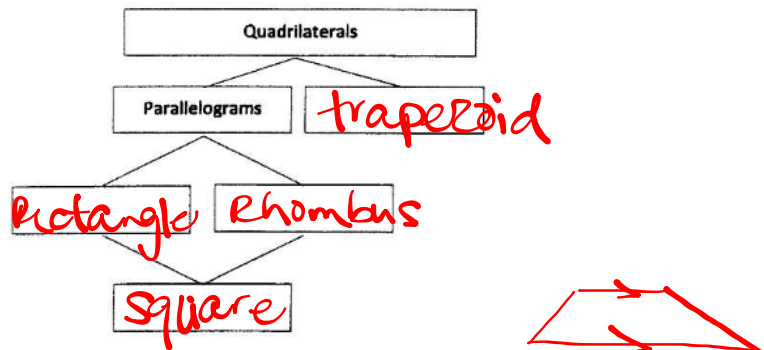
Topic: _____ Class: _____


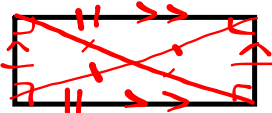

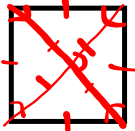
Main Ideas/Questions	Notes/Examples
<p>QUADRILATERALS</p> 	<ul style="list-style-type: none"> A quadrilateral is a polygon with <u>4</u> sides and <u>4</u> angles. On the quadrilateral to the left, the sides are <u>wx</u>, <u>xy</u>, <u>yz</u>, and <u>zw</u> the angles are <u>w</u>, <u>x</u>, <u>y</u> and <u>z</u>. The sum of the measures of the four angles is always <u>360</u> <p>Therefore,</p>
<p>EXAMPLES</p>	<p>Directions: Find each missing measure.</p> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <p>1. </p> </div> <div style="width: 50%;"> <p>2. </p> </div> <div style="width: 50%;"> <p>3. </p> </div> <div style="width: 50%;"> <p>4. </p> </div> <div style="width: 50%;"> <p>5. </p> </div> <div style="width: 50%;"> <p>6. </p> </div> <div style="width: 50%;"> <p>7. </p> <p style="text-align: right;"> $m\angle 1 = \underline{\hspace{2cm}}$ $m\angle 2 = \underline{\hspace{2cm}}$ $m\angle 3 = \underline{\hspace{2cm}}$ </p> </div> <div style="width: 50%;"> <p>8. </p> <p style="text-align: right;"> $m\angle 1 = \underline{\hspace{2cm}}$ $m\angle 2 = \underline{\hspace{2cm}}$ $m\angle 3 = \underline{\hspace{2cm}}$ $m\angle 4 = \underline{\hspace{2cm}}$ </p> </div> </div>

Quadrilateral Family Tree



Quadrilateral Family Tree



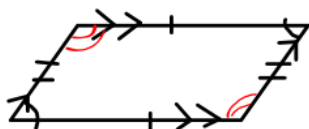
<p>Parallelogram</p> 	<p>Rectangle</p> 
<p>Rhombus</p> 	<p>Square</p> 

on the parallelogram flap...

Parallelogram

1. 4 sides - quadrilateral
2. opposite sides congruent
3. opposite sides parallel
4. congruent opposite angles

→ same or equal

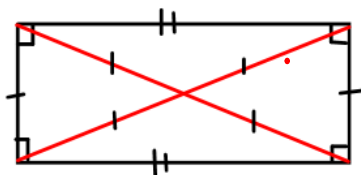


Rectangle:

1. 4 sides - quadrilateral
2. opposite sides congruent
3. opposite sides parallel
4. 4 right angles
5. diagonals that bisect each other
6. congruent opposite angles

connect
opposite
corners

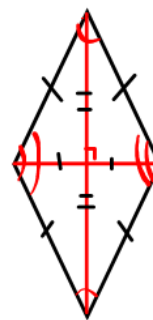
Divide in
two
equal
parts



on the rhombus flap...

Rhombus:

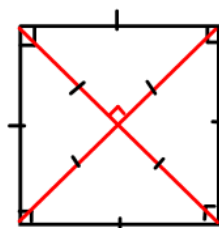
1. 4 sides - quadrilateral
2. opposite sides congruent
3. opposite sides parallel
4. congruent sides (equal)
5. diagonals that bisect each other
6. opposite angles congruent
7. diagonals that intersect at right angles



on the square flap...

Square:

1. 4 sides - quadrilateral
2. opposite sides congruent
3. opposite sides parallel
4. congruent sides (equal)
5. diagonals that bisect each other
6. opposite angles congruent
7. diagonals that intersect at right angles



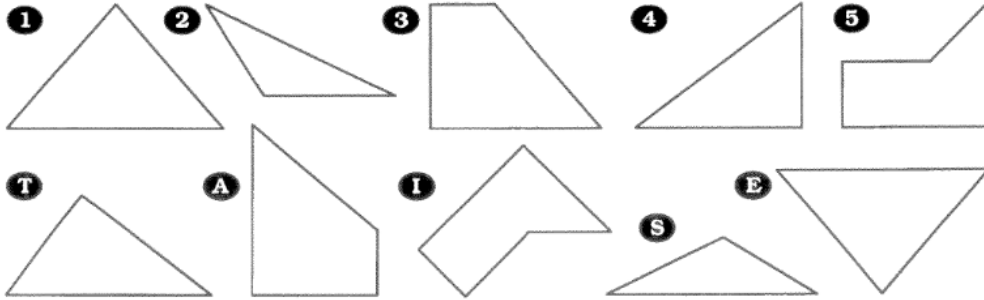
When Was the 300-lb Wrestler on Television?

homework



Each exercise will give you a number-letter pair. Write the letter in the matching numbered box at the bottom of the page.

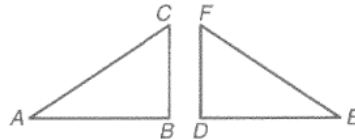
Find pairs of congruent figures. Use the number from one figure and the letter from the other.



Complete each statement. Use the number of the exercise and the letter of the answer.

$$\triangle ABC \cong \triangle EDF$$

- 6 $\overline{AC} \cong$ 7 $\angle B \cong$
 8 $\overline{AB} \cong$ 9 $\angle C \cong$

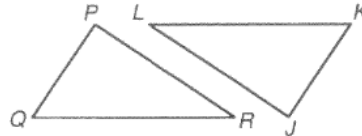


Answers 6-9

- O \overline{DE} T $\angle D$
 E \overline{EF} G $\angle E$
 L \overline{FD} E $\angle F$

$$\triangle PQR \cong \triangle JKL$$

- 10 $\overline{PR} \cong$ 11 $\angle R \cong$
 12 $\overline{QR} \cong$ 13 $\angle P \cong$

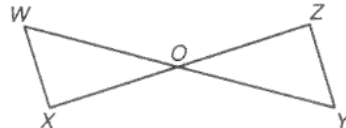


Answers 10-13

- Y \overline{JK} H $\angle J$
 D \overline{KL} F $\angle K$
 T \overline{LJ} E $\angle L$

$$\triangle XOW \cong \triangle ZOY$$

- 14 $\overline{WO} \cong$ 15 $\angle W \cong$
 16 $\overline{WX} \cong$ 17 $\angle WOX \cong$

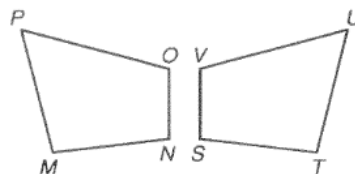


Answers 14-17

- E \overline{YZ} J $\angle Y$
 X \overline{ZO} S $\angle Z$
 R \overline{OY} B $\angle ZOY$

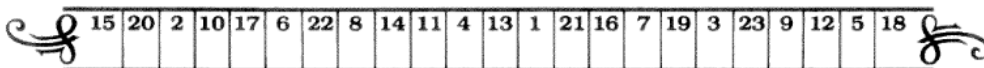
$$MNOP \cong TSVU$$

- 18 $\overline{OP} \cong$ 19 $\angle O \cong$
 20 $\overline{MN} \cong$ 21 $\angle M \cong$
 22 $\overline{PM} \cong$ 23 $\angle P \cong$



Answers 18-23

- U \overline{ST} O $\angle S$
 F \overline{TU} S $\angle T$
 N \overline{UV} V $\angle U$
 T \overline{VS} C $\angle V$



FU9CU7G

1 ~ Finish post assessment

2 ~ Complete homework

3 ~ IXL Lessons 6th Grade

CC1, CC6, CC8, CC9