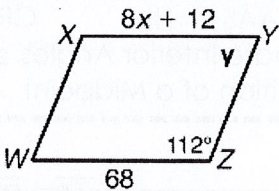
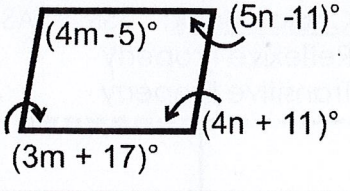
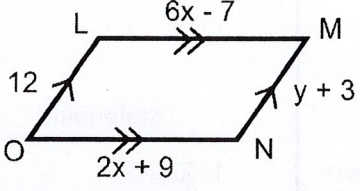
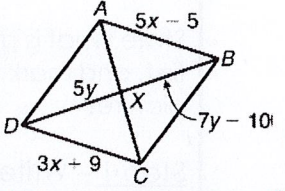
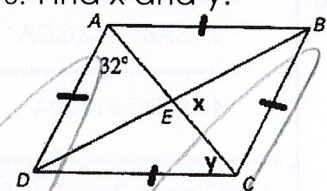
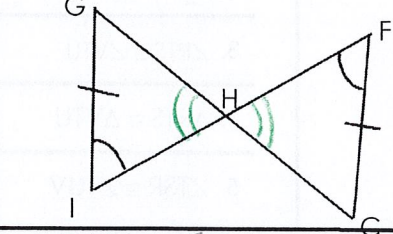
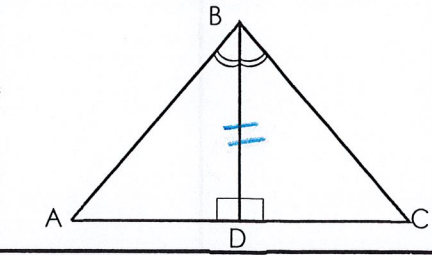
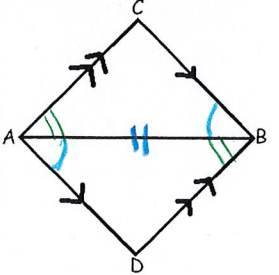
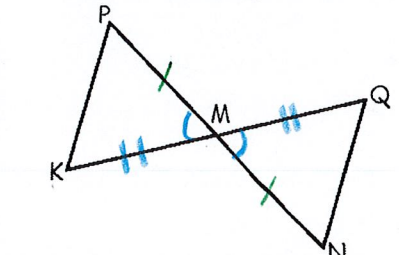
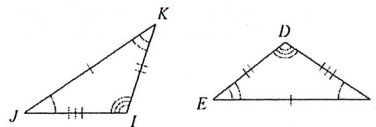
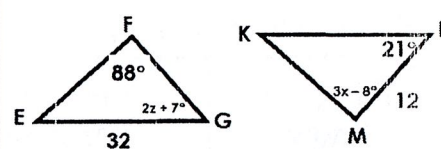


Name: _____

Date: _____

Use the following to review for you test. **Show your work on a separate sheet of paper if needed.**

Things to Know	Things to Remember	Examples	
<p>Properties of Parallelograms</p>	<ul style="list-style-type: none"> • Opposites angles are congruent • Consecutive angles are supplementary • Opposite sides are equal • Diagonals bisect each other <p><i>SCROLL DOWN</i> <i>DID THESE ON SEPERATE PAPER</i></p>	<p>1. Find x and y.</p> 	<p>2. Find m and n.</p> 
<p>Special Parallelograms</p>	<ul style="list-style-type: none"> • A rectangle is a parallelogram with 4 right angles and CONGRUENT DIAGONALS • A rhombus is a parallelogram with 4 congruent sides AND PERPENDICULAR DIAGONALS • A square is a rectangle and rhombus 	<p>3. Find x and y.</p> 	<p>4. Find x and y.</p>  <p><i>↑</i></p>
<p>Triangle Congruence</p>	<p>SSS, SAS, ASA, AAS, HL, None</p>	<p>5. Find x and y.</p> 	<p>6. Quadrilateral $RSTU$ is a parallelogram. What other information would allow you to prove that $RSTU$ is a rectangle?</p>
		<p>7. $\triangle GHI \cong \triangle FHE$, by <u>AAS</u></p> 	<p>8. $\triangle ABD \cong \triangle CBD$, by <u>ASA</u></p> 
		<p>9. $\triangle CAB \cong \triangle DBA$, by <u>ASA</u></p> 	<p>10. The diagonals bisect each other. $\triangle PMK \cong \triangle NMQ$ by _____</p> 

CPCTC	Corresponding Parts of Congruent Triangles are Congruent	11. $\triangle DFE \cong \triangle IJK$ 	12. $\triangle EFG \cong \triangle KML$, find X and Z. 
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OTHER PAGE

Choice Bank: SSS	SAS	ASA	AAS	HL	CPCTC	Vertical Angles are \cong
Reflexive Property			Alternate Interior Angles \cong			Right Angles are \cong
Transitive Property			Definition of a Midpoint			Given

Proofs

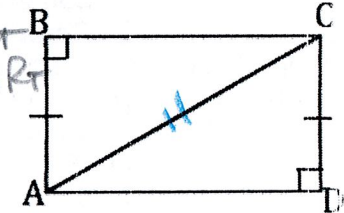
State what is given first, and mark your picture!

Step 1 – Write down the givens

Step 2 – Make any marks that you know are congruent (reflexive property, vertical angles, alternate interior angles)

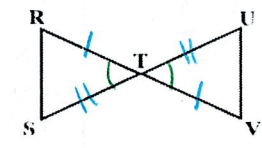
Step 3 – The last Statement will always be the "Prove" statement

13. Given: $\overline{AB} \cong \overline{DC}$, $\angle B$ is Rt \angle , $\angle D$ is Rt \angle
 Prove: $\triangle ABC \cong \triangle CDA$



Statements	Reasons
1. $\overline{AB} \cong \overline{DC}$	1. Given
2. $\overline{AC} \cong \overline{AC}$	2. Reflex Property
3. $\angle ABC \cong \angle CDA$	3. Rt \angle s are \cong
4. $\triangle ABC \cong \triangle CDA$	4. HL

14. Given: $\overline{RT} \cong \overline{TV}$, $\overline{ST} \cong \overline{TU}$
 Prove: $\angle TSR \cong \angle TUV$



Statements	Reasons
1. $\overline{RT} \cong \overline{TV}$	1. Given
2. $\overline{ST} \cong \overline{TU}$	2. Given
3. $\angle RTS \cong \angle VTU$	3. Vertical \angle s
4. $\triangle RTS \cong \triangle VTU$	4. SAS
5. $\angle TSR \cong \angle TUV$	5. CPCTC

Find the missing sides for similar figures

Set up a proportion by matching up the corresponding sides. Then, solve for x.

15.

$\frac{5}{s} = \frac{3}{4.5}$
 $3s = 22.5$
 $s = 7.5$

16.

$\frac{6}{x} = \frac{5}{8}$
 $48 = 5x$
 $9.6 = x$

17.

$\frac{4}{7} = \frac{x}{12}$
 $7x = 48$
 $x = \frac{48}{7} \approx 6.86$

18.

$\frac{2}{x} = \frac{5}{15}$
 $30 = 5x$
 $6 = x$

Midsegment versus Median

Midsegment: The segment connecting the midpoints of two sides of the triangle is parallel to the third side and 1/2 the length of the third side.
 Median: the segment connecting a triangle's vertex to the midpoint of the opposite side; all three medians intersect at a point called the centroid

19. Find PQ and TP

PQ is a midsegment
 $PQ = \frac{32}{2} = 16$
 $TP = \frac{30}{2} = 15$

20. Solve for x.

$2(x+19) = x+29$
 $2x+38 = x+29$
 $x = -11$

21.

a.) If PY is 9 cm, then YR is $YR = 18$
 b.) If PQ is 22 cm, then ZQ is $ZQ = 11$

21. a.) If PY is 9 cm, then YR is $YR = 18$
 b.) If PQ is 22 cm, then ZQ is $ZQ = 11$

Determining if two shapes are similar

For triangles: Remember the 3 ways that you can do this: AA~, SAS~, SSS~
 For quadrilaterals: corresponding sides are proportional and corresponding angles are congruent

22. $\triangle GNK \sim \triangle LKH$ by SSS

23. $\triangle ABC \sim \triangle XYZ$ by AA

$\frac{20}{15} = \frac{12}{9} = \frac{8}{6}$
 $1.33 = 1.33 = 1.33$

24.

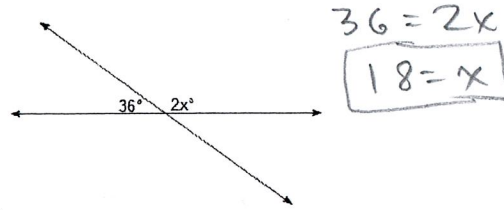
These are not similar.

These are not similar.

Angle Properties

Linear Pair
 Perpendicular Angles
 Vertical Angles
 Corresponding Angles
 Alternate Interior Angles

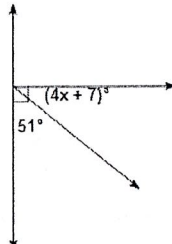
25.



$$36 = 2x$$

$$\boxed{18 = x}$$

26.



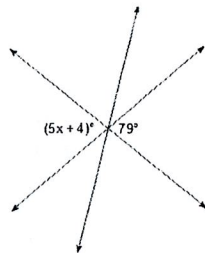
$$4x + 7 + 51 = 90$$

$$4x + 58 = 90$$

$$4x = 32$$

$$\boxed{x = 8}$$

27.



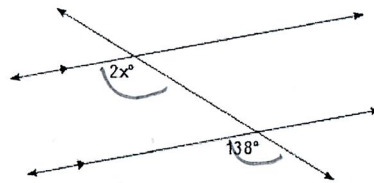
$$79 = 5x + 4$$

$$-4 \quad -4$$

$$75 = 5x$$

$$\boxed{15 = x}$$

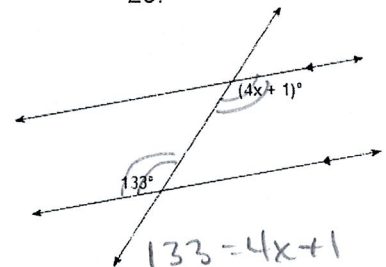
28.



$$2x = 138$$

$$\boxed{x = 69}$$

29.



$$133 = 4x + 1$$

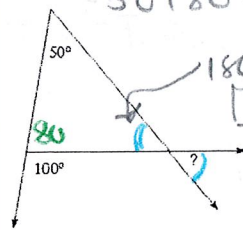
$$132 = 4x$$

$$\boxed{33 = x}$$

Triangle Properties

Sum of the three angles is 180 degrees
 Isosceles triangles have congruent legs and congruent base angles

30.

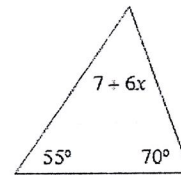


$$50 + 80 = 130$$

$$180 - 130 = 50$$

$$\boxed{50}$$

31.



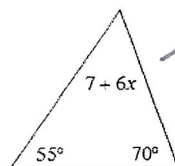
$$7 + 6x + 70 + 55 = 180$$

$$6x + 132 = 180$$

$$6x = 48$$

$$\boxed{x = 8}$$

32.



SAME! →

33.



$$8 = x + 18$$

$$-18 \quad -18$$

$$\boxed{-10 = x}$$

$$\textcircled{1} \quad 8x + 12 = 68$$

$$8x = 56$$

$$\boxed{x = 7}$$

$$112 + y = 180$$

$$\boxed{y = 68^\circ}$$

$$\textcircled{3} \quad 6x - 7 = 2x + 9$$

$$4x = 16$$

$$\boxed{x = 4}$$

$$12 = y + 3$$

$$\boxed{9 = y}$$

$$\textcircled{2} \quad 4m - 5 + 3m + 7 = 180$$

$$7m + 12 = 180$$

$$7m = 168$$

$$\boxed{m = 24}$$

$$5n - 11 + 4n + 11 = 180$$

$$9n = 180$$

$$\boxed{n = 20}$$

$$\textcircled{4} \quad 5x - 5 = 3x + 9$$

$$2x = 14$$

$$\boxed{x = 7}$$

$$5y = 7y - 10$$

$$-2y = -10$$

$$\boxed{y = 5}$$

$$\textcircled{12} \quad 88 = 3x - 8$$

$$96 = 3x$$

$$\boxed{32 = x}$$

$$2z + 7 = 21$$

$$2z = 14$$

$$\boxed{z = 7}$$

