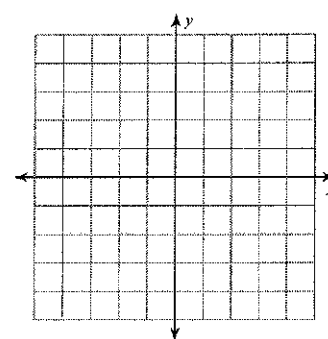
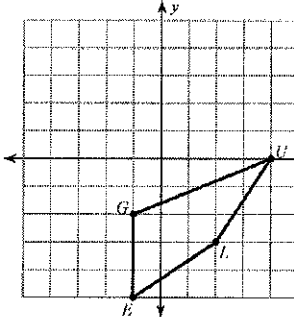
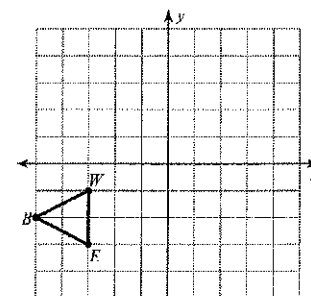
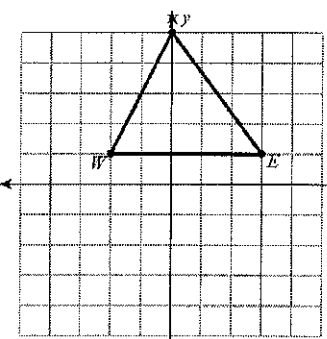
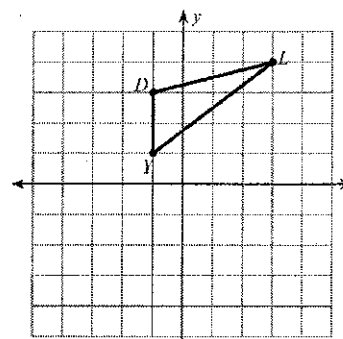
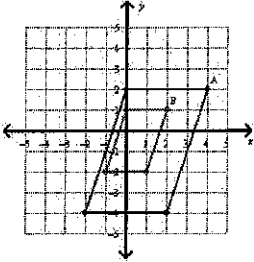
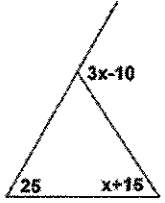
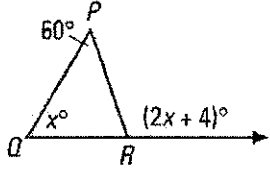


Name: _____ Date: _____ Period _____

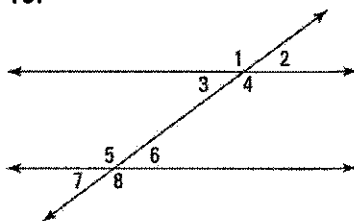
What you need to know & be able to do	Things to remember	Problem	Problem
Translations	<ul style="list-style-type: none"> Find the new coordinates by adding/ subtracting the given value. Find the pre-image by doing the OPPOSITE. A translation is a rigid motion which means the pre-image and image are congruent 	<p>1. Translate the following points by the rule: $(x, y) \rightarrow (x+1, y-4)$</p> <p>D (-5, 2) → _____</p> <p>O (-4, 5) → _____</p> <p>G (-1, 1) → _____</p> <p>S (-4, -2) → _____</p>	<p>2. Translation: $(x, y) \rightarrow (x-2, y-6)$</p> <p>Graph pre-image and image. C(3, 2) A(2, 4) T(3, 5) S(5, 2)</p> 
Reflections	<ul style="list-style-type: none"> Reflect over x-axis: $(x, -y)$ Reflect over y-axis: $(-x, y)$ Reflect across $y = x$ (switch x and y) Reflect across $y = -x$ (switch x and y AND change their signs) 	<p>3. Reflect across $y = x$</p> 	<p>4. Reflect across $y = -x$ then reflect across the y-axis</p> 
Rotations	<ul style="list-style-type: none"> 90CW/270CCW: $(y, -x)$ 180: $(-x, -y)$ 90CCW/270CW: $(-y, x)$ "drive the car": the fist that goes over the other is the sign that changes; switch the order. 	<p>5. Rotate the figure 90 CW</p> 	<p>6. Rotate the figure 90 CCW</p> 
Dilations	<ul style="list-style-type: none"> Multiply the coordinates by the given scale factor (k) Pre-image and image are NOT congruent; they are similar. Dilations are NOT rigid motions 	<p>7. A. Find the coordinates of the new vertices of the image that has been dilated by a factor of 5.</p> <p>R (-4, 5) → _____</p> <p>A (-1, 1) → _____</p> <p>T (-4, -2) → _____</p>	<p>8. Find the scale factor of the outside image if the inside figure is the pre-image. (smaller to larger) >>> see next page</p>

		<p>B. Find the coordinates of the new vertices of the image that has been dilated by a factor of $\frac{1}{2}$.</p> <p>U(2, 4) → R(4, -6) → P(-2, 2) →</p>	
<p>Multiple Transformations</p>	<ul style="list-style-type: none"> • ORDER IS IMPORTANT • Use the <i>previous</i> ordered pairs to do the next transformation. 	<p>9. Given the points M(-3, 1) S(5, -2)</p> <p>Translate: $(x - 3, y + 2)$ Reflect: over y-axis</p> <p>M' → S' → M'' → S'' →</p>	<p>10. Given the points K(0, -4) P(-6, -3) R(1, 2)</p> <p>Reflect: over the x-axis Rotate: 270 CCW</p> <p>K' → P' → R' → K'' → P'' → R'' →</p>
<p>Angles of a triangle</p>	<ul style="list-style-type: none"> • Angles add up to 180 • The exterior angle of a triangle is equal to the sum of the 2 remote interior angles 	<p>11. The angles of a triangle measure $x+14$, $4x - 2$, and $5x + 8$. Solve for x and find the 3 angle measures.</p> <p>X = _____ Angles _____</p> <div style="text-align: center;">  </div> <p>13. X = _____</p>	<p>12. Given the sides lengths, find the interval of the 3rd side</p> <p>a. 5 and 8 b. 10 and 11</p> <div style="text-align: center;">  </div> <p>14. X = _____</p>

Special angle relationships

- Parallel lines cut by a transversal forms congruent and supplementary angles
- Angle relationships can be vertical, adjacent, alternate interior, alternate exterior, corresponding, same-side interior, and same-side exterior.

15.



Congruent angles:

1 and _____

2 and _____

Supplementary angles:

Angle 1 and _____

Angle 2 and _____

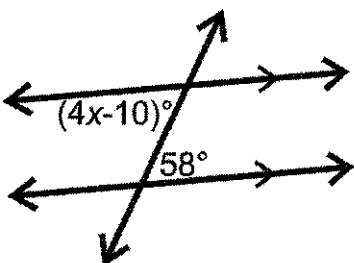
16. If $\angle 3 = 2x + 20$ and $\angle 5 = 3x + 45$, solve for x and find angles 5 and 3.

$x =$ _____

$\angle 3 =$ _____

$\angle 5 =$ _____

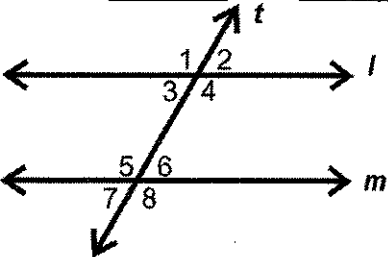
17. a. Solve for x .



18. If $m\angle 5 = 110$, find

$m\angle 8 =$ _____ $m\angle 4 =$ _____

$m\angle 2 =$ _____ $m\angle 7 =$ _____



19. Relationships:

Angles 1 and 8:

Angles 1 and 5:

Angles 4 and 8:

Angles 3 and 6:

Angles 7 and 6:

Angles 7 and 8:

Angles 3 and 5:

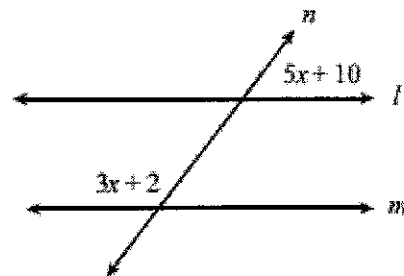
Angles 2 and 8:

20. If $\angle 6 = 82$ and $\angle 3 = 2x + 10$, find x and angles 6 and 3.

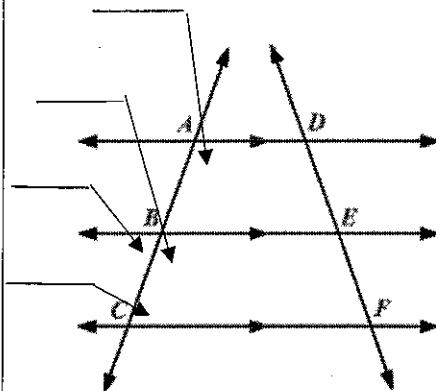
$x =$ _____ $m\angle 6 =$ _____

$m\angle 3 =$ _____

21. Solve for x .



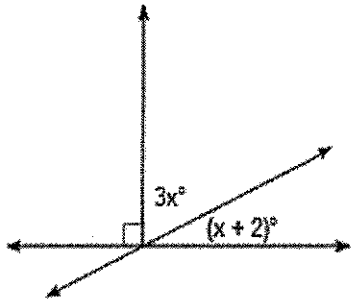
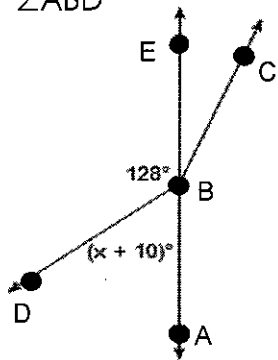
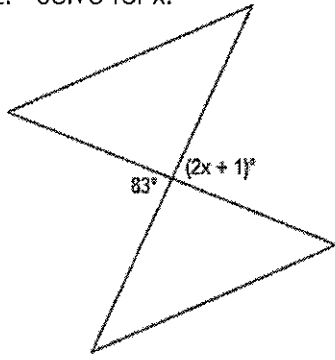
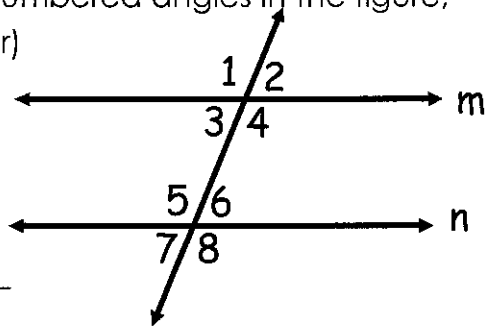
22. a. If $\angle A = 110$, find the angles the arrows are pointing to.

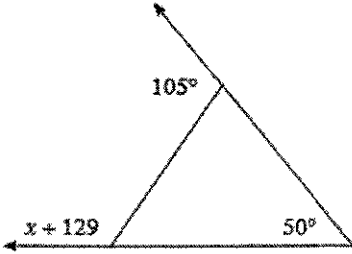
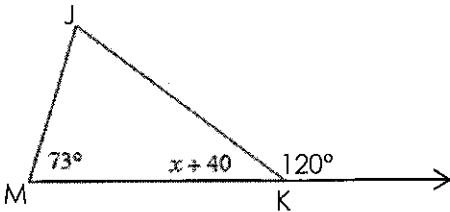
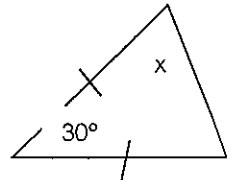


Name: _____

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>Solving for missing angles</p>	<p>Linear Pair – $___ + ___ = 180^\circ$ Supplementary Angles $___ + ___ = 180^\circ$ Complementary Angles $___ + ___ = 90^\circ$ Vertical Angles $___ = ___$ Alternate Interior Angles $___ = ___$ Alternate Exterior Angles $___ = ___$ Corresponding Angles $___ = ___$ Consecutive Interior Angles $___ + ___ = 180^\circ$</p>	<p>1. Solve for x.</p> 	<p>3. Solve for x, and the measure of $\angle ABD$</p>  <p>4. One of two supplementary angles is 98° greater than its supplement. Find the measure of both angles.</p> <p>5. $\angle 1$ and $\angle 2$ are complementary angles. Solve for x and the measure of both angles. $\angle 1 = 7x + 20$ $\angle 2 = 17x - 2$</p>
		<p>2. Solve for x.</p> 	
<p>6. Given $m \parallel n$, $m\angle 8 = 123^\circ$, find the measures of all the numbered angles in the figure, and give the reason why (vocab in things to remember)</p> <p>$m\angle 1 = ___, m\angle 2 = ___, m\angle 3 = ___$ _____</p> <p>$m\angle 4 = ___, m\angle 5 = ___, m\angle 6 = ___, m\angle 7 = ___$ _____</p>			

<p>Sum of Interior & Exterior Angles</p>	<p>The sum of all interior angles is 180°. $\angle 1 + \angle 2 + \angle 3 = 180^\circ$</p> <p>The sum of a straight line is 180°.</p>	<p>7. Solve for $x = \underline{\hspace{2cm}}$</p> 	<p>8. Solve for $x = \underline{\hspace{2cm}}$ and $\angle J = \underline{\hspace{2cm}}$</p> 
<p>Base Angles</p>	<p>-If 2 angles in a triangle are congruent, then the sides opposite them are congruent.</p> <p>-If 2 sides in a triangle are congruent, then the angles opposite them are congruent.</p>	<p>11. Solve for x.</p> 	<p>12. $\triangle ABC$ is an isosceles triangle with AB and BC as the legs. Solve for x.</p> 