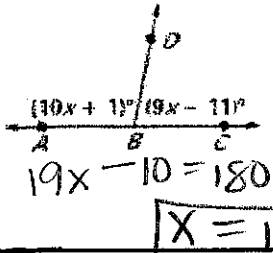


Name: _____ Date: _____

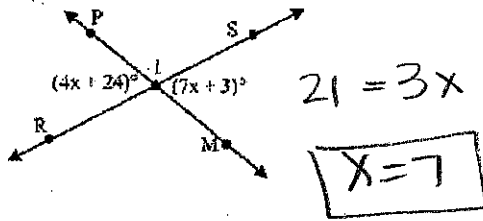
Unit 1 Test Review

Missing Angles: Solve for x.

1.

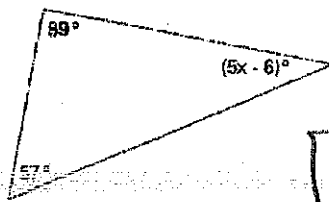


2.



3.

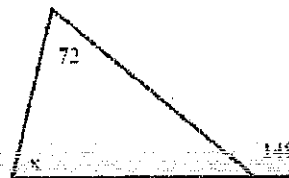
$89 + 57 + 5x - 6 = 180$



$5x + 140 = 180$
 $5x = 40$

$x = 8$

4.



$x + 72 = 148$

$x = 76$

5. $\angle 1$ and $\angle 2$ are complementary. Solve for x and the measure of both angles.

$\angle 1 = 12x + 4$

$\angle 2 = 9x + 2$

$21x + 6 = 90$

$21x = 84$
 $x = 4$

$\angle 1 = 52^\circ$

$\angle 2 = 38^\circ$

6. The measure of one angle is 38 less than the measure of its supplement.

Find the measure of each angle.

$\angle 1 = 106^\circ$

$\angle 2 = 74^\circ$

$x + x - 38 = 180$

$x = 106$

$2x = 212$

7. One of two supplementary angles is 123° less than twice its supplement. Find the measure of both angles.

$\angle 1 = 101^\circ$

$\angle 2 = 79^\circ$

$\angle 1 = x$

$\angle 2 = 2x - 123$

$3x - 123 = 180$

$3x = 303$

$x = 101$

Parallel Lines:

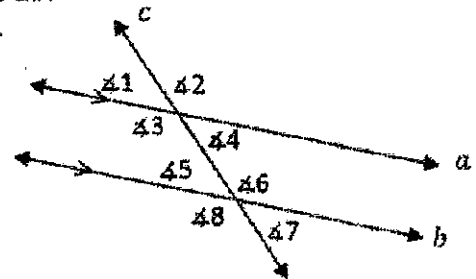
Name the angles listed and the special property of each pair.

8. $\angle 1$ and $\angle 5$ Corresponding

9. $\angle 4$ and $\angle 6$ Consecutive interior

10. $\angle 2$ and $\angle 8$ Alternate exterior

11. $\angle 4$ and $\angle 5$ Alternate Interior



12. Given $m \parallel n$ and $m \angle 8$, find the measures of all the numbered angles in the figure.

$m \angle 8 = 112^\circ$

$m \angle 1 = 112^\circ$

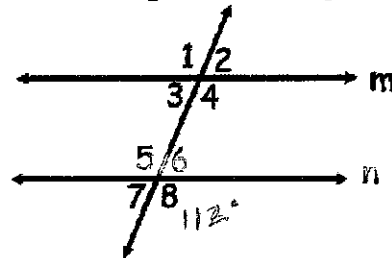
$m \angle 3 = 68^\circ$

$m \angle 5 = 112^\circ$

$m \angle 2 = 68^\circ$

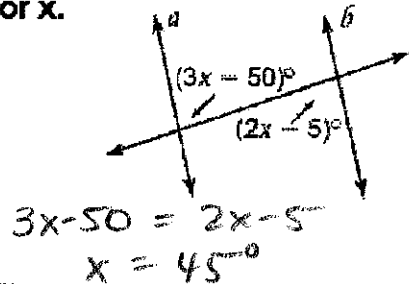
$m \angle 4 = 112^\circ$

$m \angle 6 = 68^\circ$ $m \angle 7 = 68^\circ$



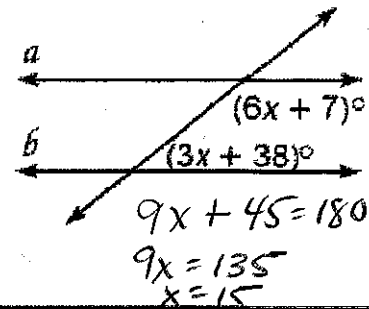
Solve for x.

13.



14.

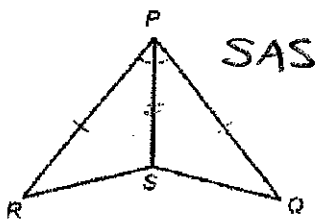
$x = 15$



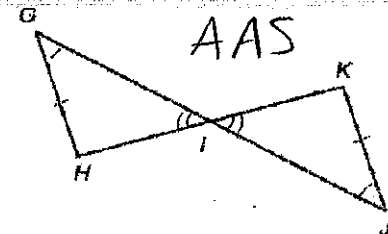
Congruent Triangles:

Determine whether each pair of triangles is congruent (SSS, SAS, ASA, AAS, or HL). If not, write not congruent.

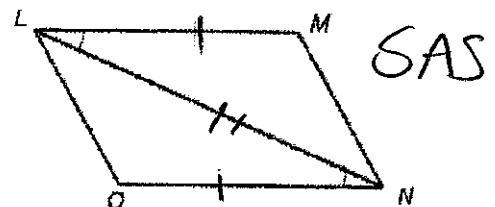
15.



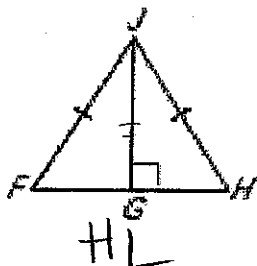
16.



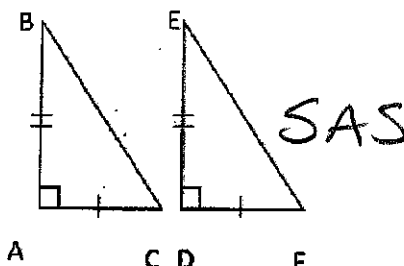
17.



18.



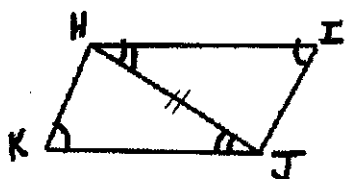
19.



20. $\triangle ABC \cong \triangle DEF$. What is congruent to $\angle EDF$?

$\angle BAC$

21. Complete the following proof:

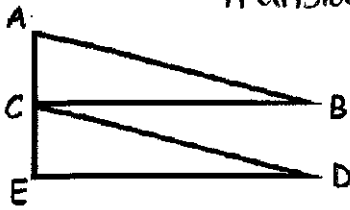


Statement	Reason
1. $\angle I \cong \angle K$	1. GIVEN
2. $\angle IHJ \cong \angle KJH$	2. GIVEN
3. $HJ \cong HJ$	3. REFLEXIVE
4. $\triangle HJK \cong \triangle NHI$	4. AAS

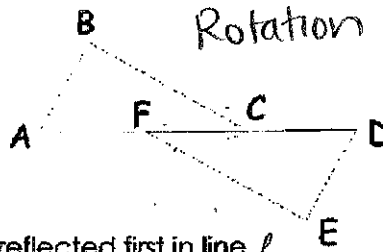
Name: _____ Date: _____

Name the transformation that maps:

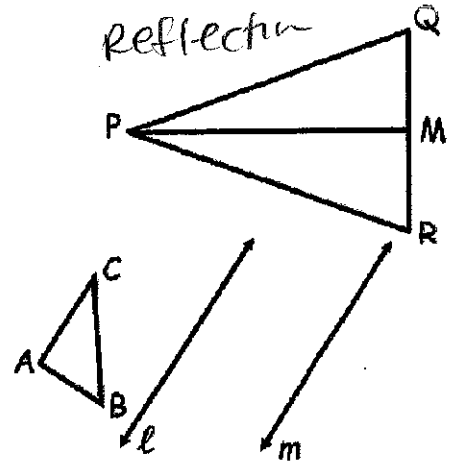
1. $\triangle ABC \rightarrow \triangle CDE$ translation



2. $\triangle ABC \rightarrow \triangle DEF$ Rotation



3. $\triangle PQR \rightarrow \triangle PMQ$ Reflection



4. In the diagram, $l \parallel m$ and $\triangle ABC$ is reflected first in line l and then in line m . This set of reflections is equivalent to doing what kind of singular transformation?

translation

Describe any rotations (of 180° or less) that will map each figure onto itself.

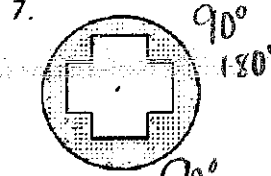
5. $60^\circ, 120^\circ, 180^\circ, 6.$



60° rotation around center

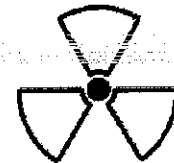


$72^\circ, 144^\circ$
 72° rotation around center



$90^\circ, 180^\circ$
 90° rotation around center

8.

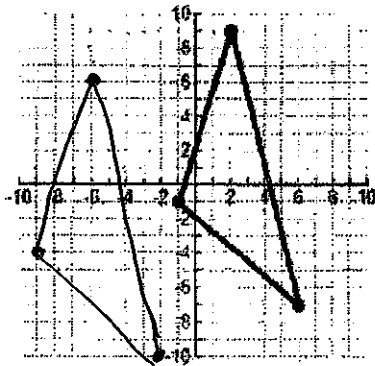


120° rotation around center

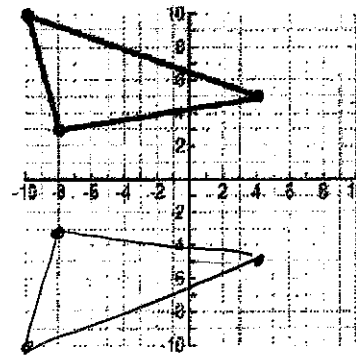
120°

Draw the image of each figure, using the given transformation.

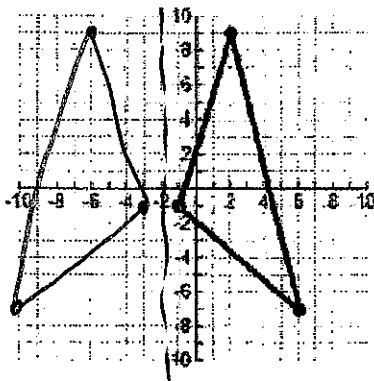
9. Translation $(x, y) \rightarrow (x - 8, y - 3)$



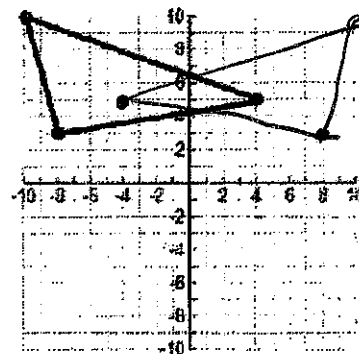
10. Reflection across the x-axis.



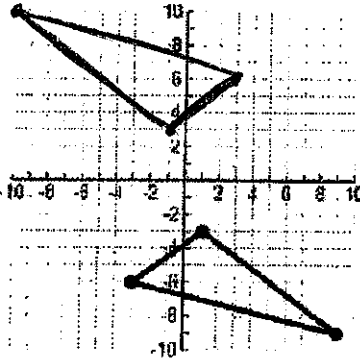
11. Reflection across the line $x = -2$



12. Reflection across the y-axis.



13. Rotation 180° about the origin

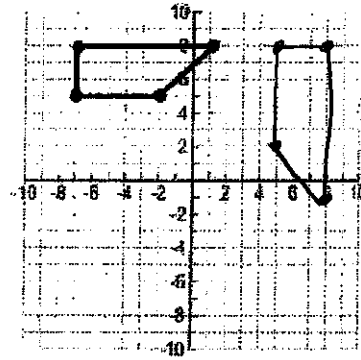


$$(1, -3) \rightarrow (-1, 3)$$

$$(-3, -6) \rightarrow (3, 6)$$

$$(10, -10) \rightarrow (-10, 10)$$

14. Rotation 90° clockwise about the origin.



CCW CW

90 - Y X 270

180 - X -Y 180

270	Y	-X	90
360	X	Y	0

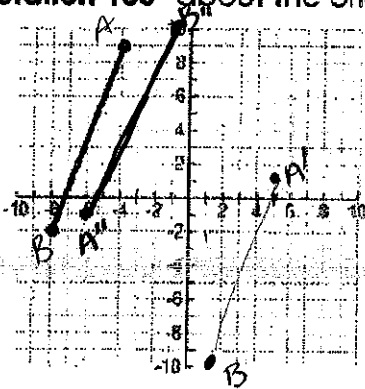
$$(1, 8) \rightarrow (8, -1)$$

$$(-2, 5) \rightarrow (5, 2)$$

$$(-8, 8) \rightarrow (8, 8)$$

$$(-8, 5) \rightarrow (5, 8)$$

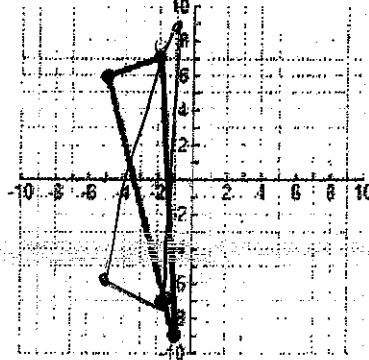
15. Translation $(x, y) \rightarrow (x + 9, y - 8)$
Rotation 180° about the origin.



$$(5, 1) \rightarrow (-5, -1)$$

$$(1, -10) \rightarrow (-1, 10)$$

16. Rotation 90° CCW about the origin
Reflection about the line $y = x$.



$$(-Y, X)$$

$$(-2, 7) \rightarrow (-7, -2)$$

$$(-5, 6) \rightarrow (-6, -5)$$

$$(-1, 9) \rightarrow (9, -1)$$

$$(Y, X)$$

$$\rightarrow (-2, -7)$$

$$\rightarrow (-5, -6)$$

$$\rightarrow (-1, 9)$$