1. Identify all the adjacent angles pairs that form a linear pair.

2. Right a rule for the transformation.

$(\mathrm{x}, \mathrm{y}) \rightarrow$ (
3. After a rotation of $90^{\circ}$ was applied, the image was at $A^{\prime}(4,2), B^{\prime}(2,6), C^{\prime}(10,1)$. What are the coordinates of the preimage?
4. Find the length of MP

5. What type of transformation occurred?

6. Identify the triangle congruence shortcut that would prove if the triangles are congruent.
A. $\triangle Q S T \cong \Delta S Q R$
B. $\triangle B A C \cong \triangle B S C$
C. $\triangle \mathrm{DAB} \cong \triangle \mathrm{BCD}$


What type of angle pair are $\angle 1$ and $\angle 4$ ?
11. Find the measure of $x$.

13. Segment EF measures $(7 a-17) \mathrm{cm}$ and segment FG measures $(4 a+1) \mathrm{cm}$. Find the length of segment EG.

15. Bisect the segment below using a compass. Mark the congruent segments.
17. Rotate the triangle $-70^{\circ}$ about the given point.


0
12. Find the measure of a.

14. Identify the triangle congruence shortcut that would prove if the triangles are congruent.
A. $\Delta \mathrm{VUX} \cong \Delta \mathrm{VWX}$
B. $\triangle \mathrm{DFG} \cong \triangle \mathrm{FDE}$

16. Draw $\angle \mathrm{MOP}=67^{\circ}$. Bisect the angle using a compass.
18. Find the center and angle of rotation.

19. Name the type of pair and the relationship between them

1. $\angle 8$ and $\angle 2$ $\qquad$
2. $\angle 1$ and $\angle 5$ $\qquad$
3. $\angle 7$ and $\angle 6$ $\qquad$
4. $\angle 4$ and $\angle 5$ $\qquad$
5. $\angle 2$ and $\angle 6$ $\qquad$
6. $\angle 8$ and $\angle 6$ $\qquad$

7. Rotate the figure $90^{\circ}(x, y) \rightarrow(, \quad)$

8. Find the unknown measures
$\mathrm{x}=$ $\qquad$
$\mathrm{m} \angle \mathrm{a}=$ $\qquad$
$\mathrm{m} \angle \mathrm{b}=$ $\qquad$
$\mathrm{m} \angle \mathrm{c}=$ $\qquad$

9. Reflect the figure over the $x$-axis $(x, y) \rightarrow(, \quad)$

