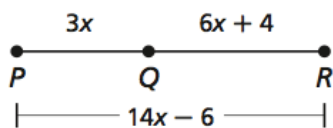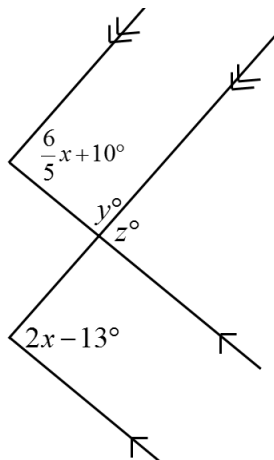| 1. Q is between P and R. Find PR and PQ.	2. E is the midpoint of segment DF. DE = 9x and EF = 4x + 10. Find DE, EF, and DF.
$3x$ $6x+4$ P — Q — R $14x-6$ PR = _____ PQ = _____	 DE = _____ EF = _____ DF = _____

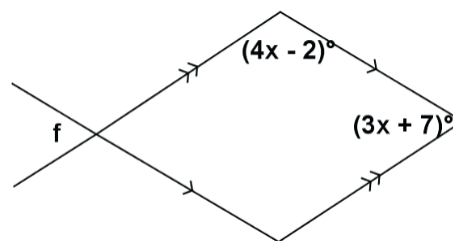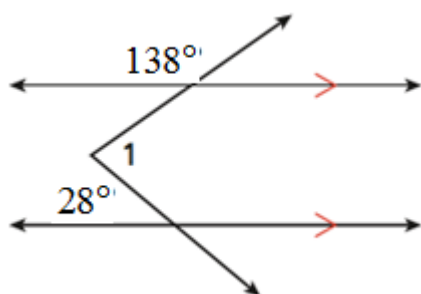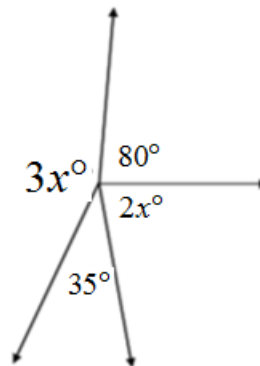| 3. $\overrightarrow{NP}$ bisects $\angle MNQ$, $m\angle MNP = (6x-12)°$, and $m\angle PNQ = (4x+8)°$. Find $m\angle MNQ$. $m\angle MNQ$ = _____	4. Write the rule for the transformation.
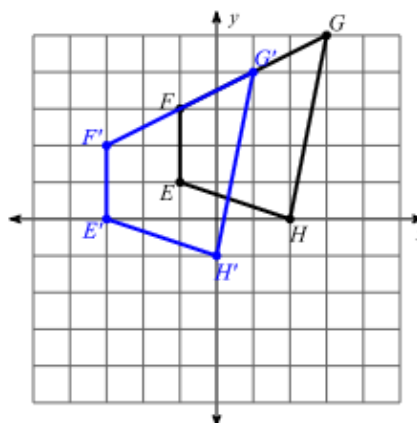
5. Find the value of x, y and z. $\frac{6}{5}x+10°$ $y°$ $z°$ $2x-13°$	6. Solve for $\angle f$ and each other angle that has information in it. $(4x-2)°$ f $(3x+7)°$

7. Find $m\angle 1$ $138°$ 1 $28°$	8. Find the measure of each missing angle $3x°$ $80°$ $2x°$ $35°$
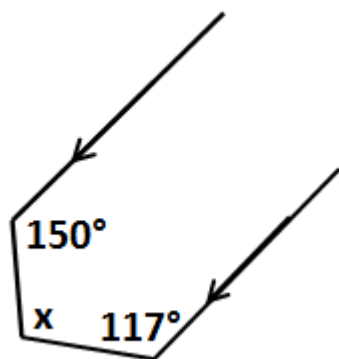
9. Find the value of x.	10. Find the value of x and y and each angle measure.
150° **x** **117°**	**x − 10y** **168°** **x + 14y**
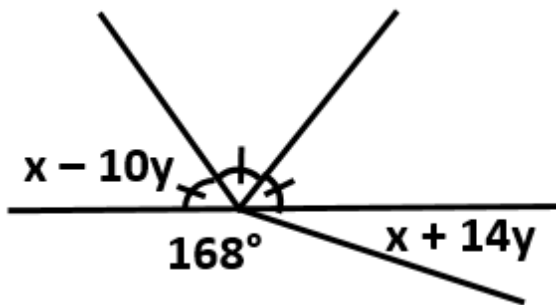
11. Find the value of x and y.	12. Find the value of x and y.
137° **x** **y**	**150°** **14 − 2x** **y + x** $-\frac{5}{2}+\frac{3}{4}x$
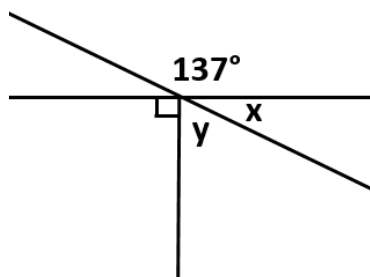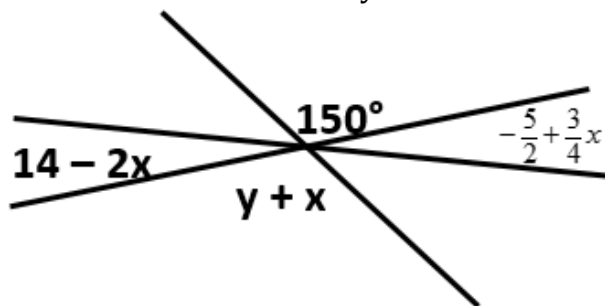
13. Find the measure of angle a.	14. Find the measure of angle m.
155° **285°** **290°** **a**	**m** **108°** **70°**
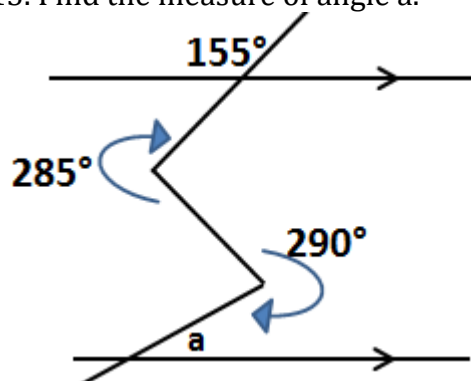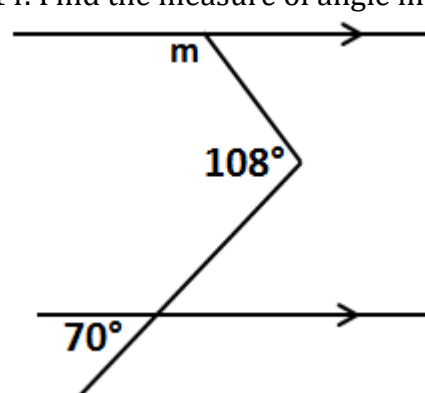
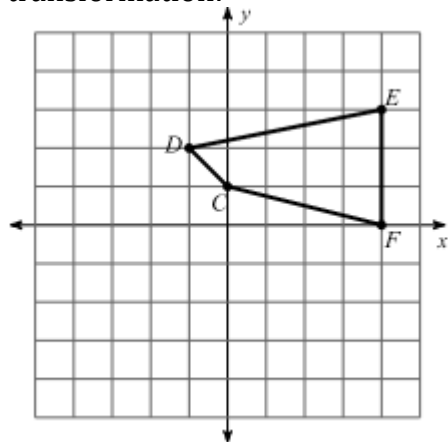| 15. Rotate the figure 90° clockwise around the origin. Write the coordinate rule for the transformation:	16. Reflect the figure over the line y = x. Write the coordinate rule for the transformation:
X *W* *Y* *Z*	*F* *E* *G*
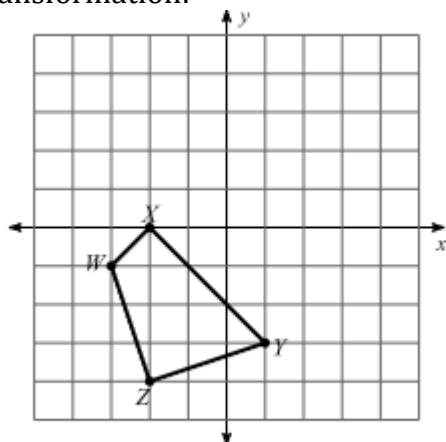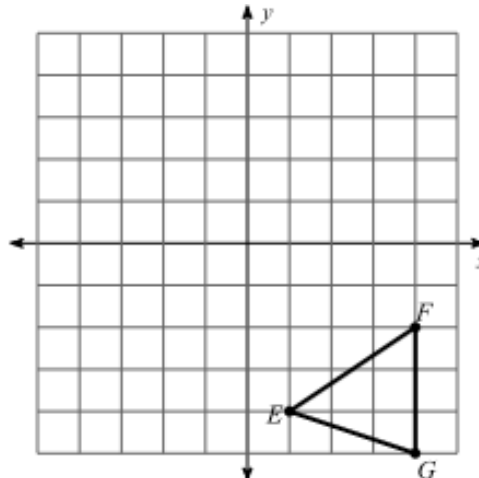
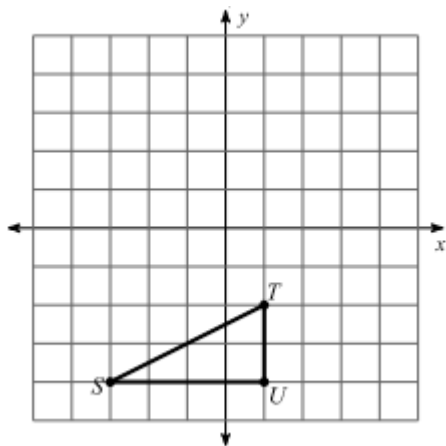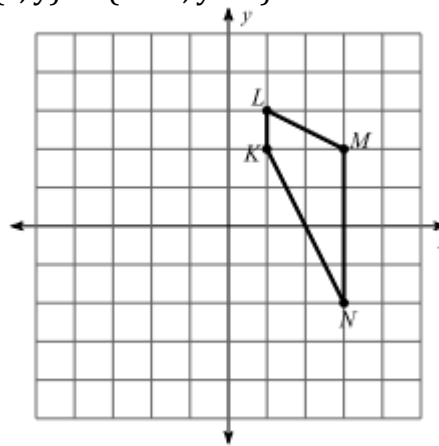| 17. Rotate the figure 90° counterclockwise around the origin. Write the coordinate rule for the transformation:	18. Rotate the figure 180° around the origin. Write the coordinate rule for the transformation:
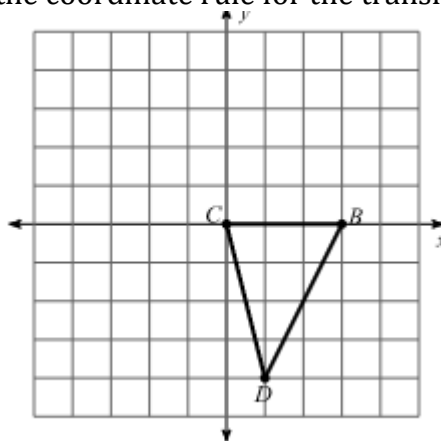
19. Reflect the figure over the y-axis. Write the coordinate rule for the transformation:	20. Apply the transformation: $(x, y) \rightarrow (x - 5, y - 2)$

Constructions

21. Draw a 65° angle - Label it ∠MPO - Use a compass to copy the angle to ∠M'P'O' - Bisect the original angle using a compass - Mark any congruent parts	22. Draw segment AB = 14 cm - Create the perpendicular bisector of segment AB using a compass - Label the midpoint as R - Mark any congruent parts on segment AB.	23. Use your compass to construct an equilateral triangle. - Mark any congruent parts. Give specific instructions that would tell someone else how to create an equilateral triangle.