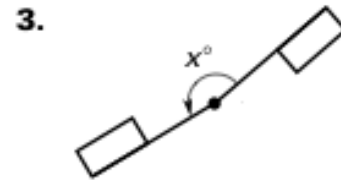
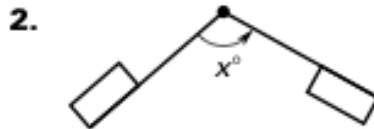
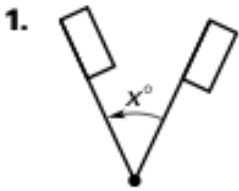


Honors Geometry

Worksheet 94

Name _____

Match the diagram with the angle of rotation.



A. 110°

B. 170°

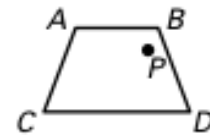
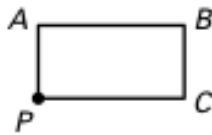
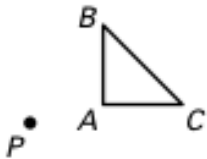
C. 50°

Trace the polygon and point P on paper. Then draw a rotation of the polygon the given number of degrees about P .

4. 45°

5. 120°

6. 135°

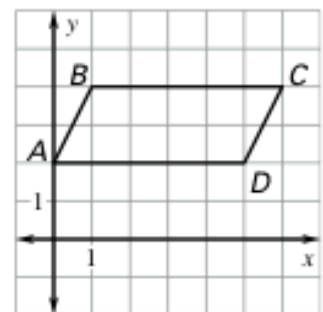
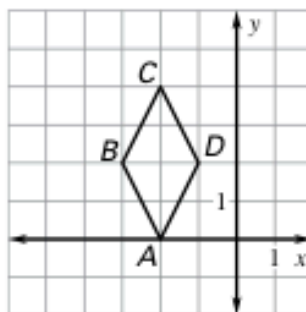
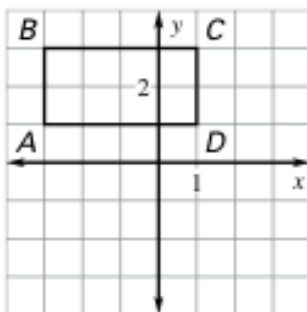


Rotate the figure the given number of degrees about the origin. List the coordinates of the vertices of the image.

7. 90°

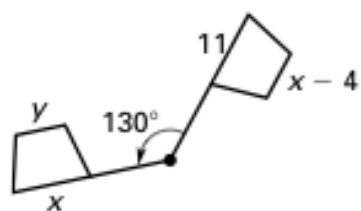
8. 180°

9. 270°

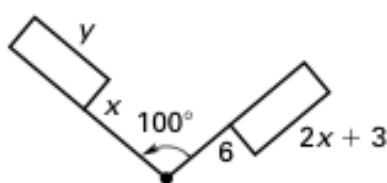


Find the value of each variable in the rotation.

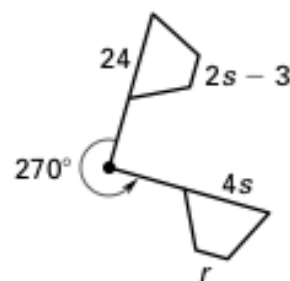
10.



11.

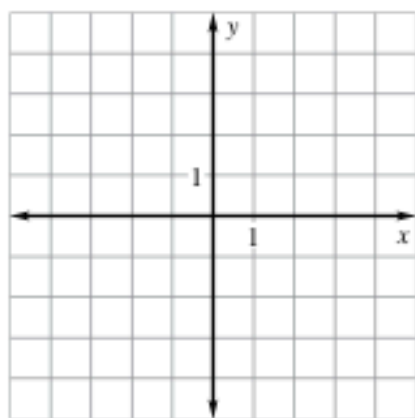


12.

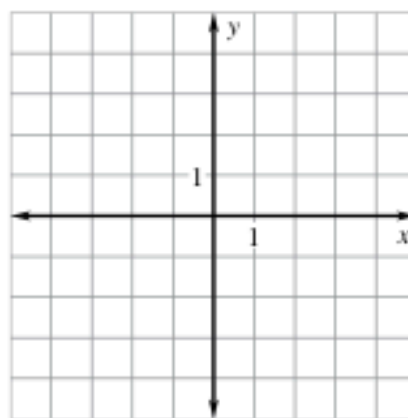


Find the image matrix that represents the rotation of the polygon about the origin. Then graph the polygon and its image.

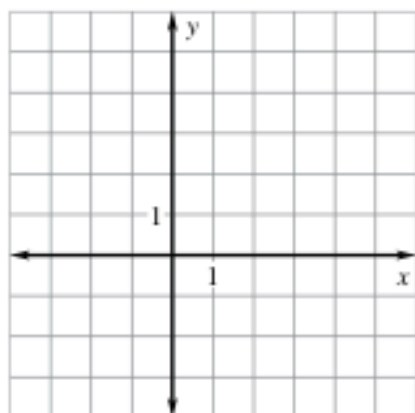
13.
$$\begin{matrix} A & B & C \\ \begin{bmatrix} 1 & 4 & 3 \\ 2 & 2 & 4 \end{bmatrix}; 90^\circ \end{matrix}$$



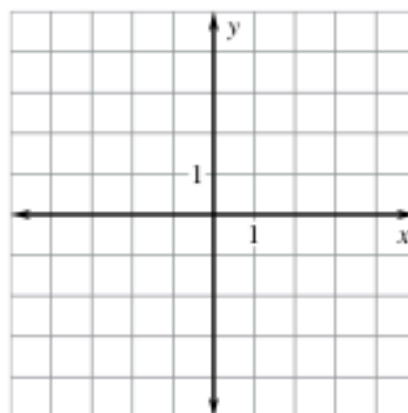
14.
$$\begin{matrix} A & B & C \\ \begin{bmatrix} 0 & 4 & 2 \\ -1 & 0 & 3 \end{bmatrix}; 180^\circ \end{matrix}$$



15.
$$\begin{matrix} A & B & C & D \\ \begin{bmatrix} 1 & 2 & 4 & 5 \\ -1 & 3 & 3 & -1 \end{bmatrix}; 90^\circ \end{matrix}$$

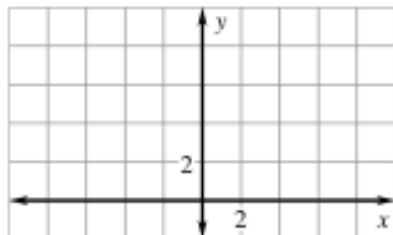


16.
$$\begin{matrix} A & B & C & D \\ \begin{bmatrix} -3 & -2 & 2 & 1 \\ -4 & -1 & -1 & -4 \end{bmatrix}; 270^\circ \end{matrix}$$



The endpoints of \overline{CD} are $C(2, 1)$ and $D(4, 5)$. Graph $\overline{C'D'}$ and $\overline{C''D''}$ after the given rotations.

17. Rotation: 90° about the origin
Rotation: 270° about $(2, 0)$



18. Rotation: 180° about the origin
Rotation: 90° about $(0, -3)$

