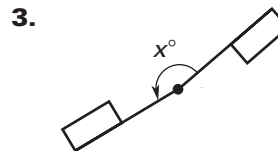
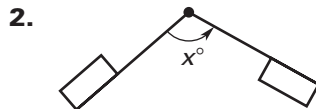
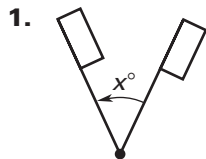


LESSON
9.4

Practice B

For use with pages 598–605

Match the diagram with the angle of rotation.



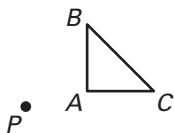
A. 110°

B. 170°

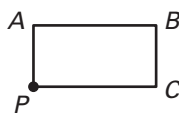
C. 50°

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

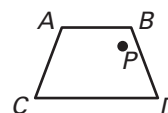
4. 45°



5. 120°

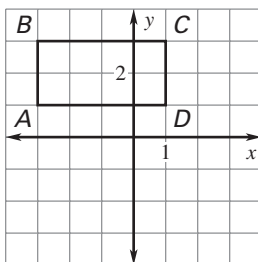


6. 135°

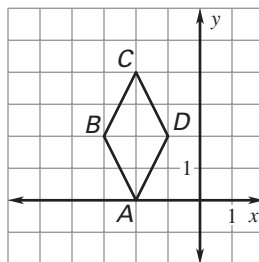


Rotate the figure the given number of degrees about the origin. List the coordinates of the vertices of the image.

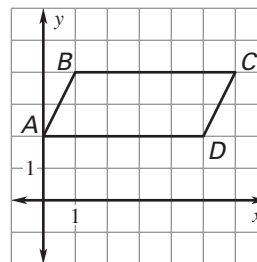
7. 90°



8. 180°

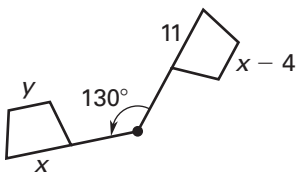


9. 270°

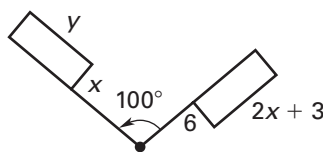


Find the value of each variable in the rotation.

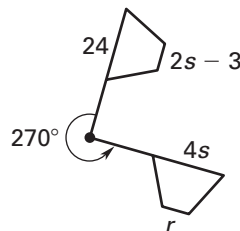
10.



11.



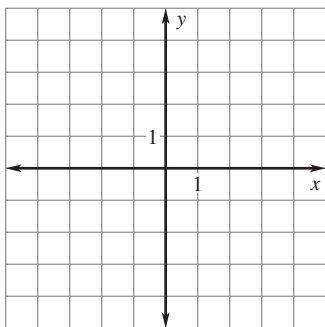
12.



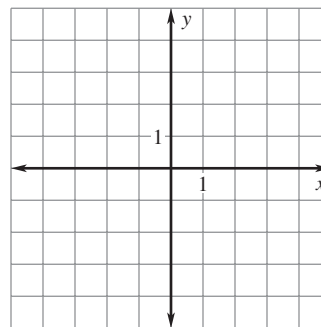
LESSON
9.4**Practice B** *continued*
For use with pages 598–605

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

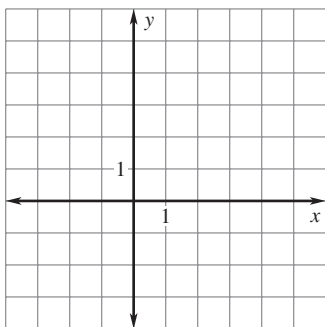
13.
$$\begin{matrix} A & B & C \\ \begin{bmatrix} 1 & 4 & 3 \\ 2 & 2 & 4 \end{bmatrix}; 90^\circ \end{matrix}$$



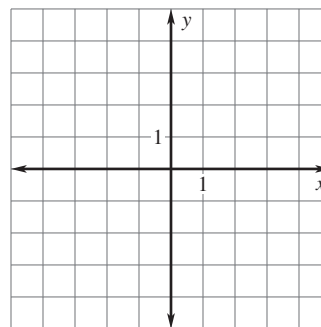
14.
$$\begin{matrix} A & B & C \\ \begin{bmatrix} 0 & 4 & 2 \\ -1 & 0 & 3 \end{bmatrix}; 180^\circ \end{matrix}$$



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

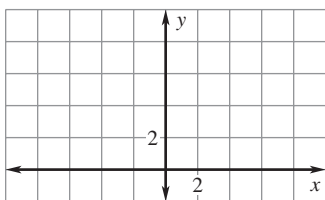


16.
$$\begin{matrix} A & B & C & D \\ \begin{bmatrix} -3 & -2 & 2 & 1 \\ -4 & -1 & -1 & -4 \end{bmatrix}; 270^\circ \end{matrix}$$



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 $(0, -3)$

