

Additional Resources

Assessment Book

- Chapter Test, Levels A, B, C, pp. 128–133
- Standardized Chapter Test, pp. 134–135
- SAT/ACT Chapter Test, pp. 136–137
- Alternative Assessment, pp. 138–139

Test Generator CD-ROM

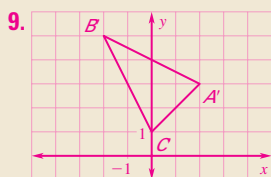
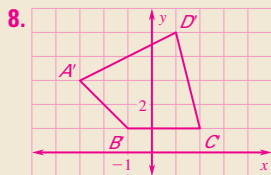
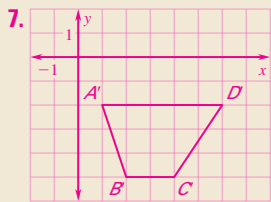
Chapter Test

Easily-readable reduced copies (with answers) of Chapter Test B, the Standardized Chapter Test, and the Alternative Assessment from the Assessment Book can be found on pp. 570G–570H.

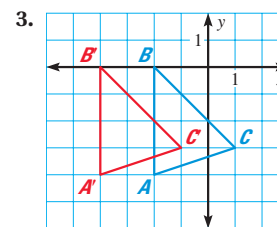
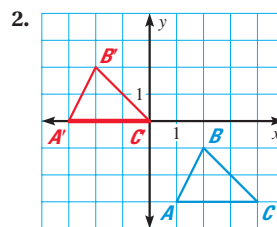
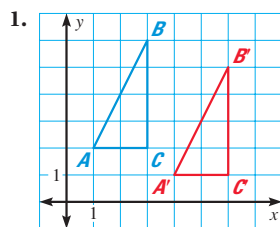
1. $(x, y) \rightarrow (x + 3, y - 1)$; $\overline{AB} = \overline{A'B'}$, $\overline{AC} = \overline{A'C'}$, $\overline{BC} = \overline{B'C'}$, so $\triangle ABC \cong \triangle A'B'C'$ by the SSS Congruence Postulate.

2. $(x, y) \rightarrow (x - 4, y + 3)$; $\overline{AB} = \overline{A'B'}$, $\overline{AC} = \overline{A'C'}$, $\overline{BC} = \overline{B'C'}$, so $\triangle ABC \cong \triangle A'B'C'$ by the SSS Congruence Postulate.

3. $(x, y) \rightarrow (x - 2, y)$; $\overline{AB} = \overline{A'B'}$, $\overline{AC} = \overline{A'C'}$, $\overline{BC} = \overline{B'C'}$, so $\triangle ABC \cong \triangle A'B'C'$ by the SSS Congruence Postulate.



Write a rule for the translation of $\triangle ABC$ to $\triangle A'B'C'$. Then verify that the translation is an isometry. 1–3. See margin.



4. $\begin{bmatrix} -7 & -6 \\ 14.1 & -0.7 \end{bmatrix}$

5. $\begin{bmatrix} -8 & -6.4 \\ 1.8 & 1 \end{bmatrix}$

6. $\begin{bmatrix} 13 \\ -7 \end{bmatrix}$

Add, subtract, or multiply.

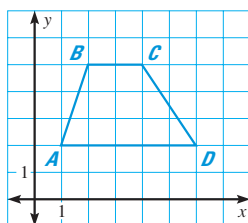
4. $\begin{bmatrix} 3 & -8 \\ 9 & 4.3 \end{bmatrix} + \begin{bmatrix} -10 & 2 \\ 5.1 & -5 \end{bmatrix}$

5. $\begin{bmatrix} -2 & 2.6 \\ 0.8 & 4 \end{bmatrix} - \begin{bmatrix} 6 & 9 \\ -1 & 3 \end{bmatrix}$

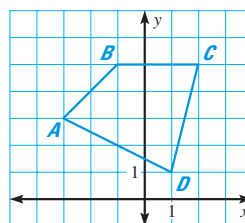
6. $\begin{bmatrix} 7 & -3 & 2 \\ 5 & 1 & -4 \end{bmatrix} \begin{bmatrix} 1 \\ 0 \\ 3 \end{bmatrix}$

Graph the image of the polygon after the reflection in the given line. 7–9. See margin.

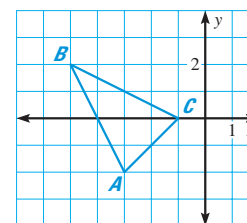
7. x -axis



8. $y = 3$



9. $y = -x$



Find the image matrix that represents the rotation of the polygon. Then graph the polygon and its image. 10, 11. See margin.

10. $\triangle ABC: \begin{bmatrix} 2 & 4 & 6 \\ 2 & 5 & 1 \end{bmatrix}; 90^\circ$ rotation

11. $KLMN: \begin{bmatrix} -5 & -2 & -3 & -5 \\ 0 & 3 & -1 & -3 \end{bmatrix}; 180^\circ$ rotation

The vertices of $\triangle PQR$ are $P(-5, 1)$, $Q(-4, 6)$, and $R(-2, 3)$. Graph $\triangle P''Q''R''$ after a composition of the transformations in the order they are listed. 12, 13. See margin.

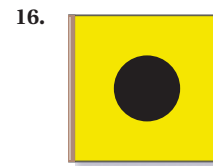
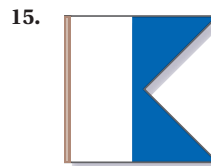
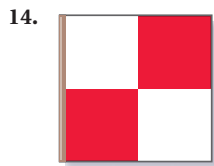
12. Translation: $(x, y) \rightarrow (x - 8, y)$

Dilation: centered at the origin, $k = 2$

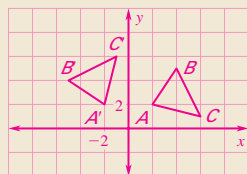
13. Reflection: in the y -axis

Rotation: 90° about the origin

Determine whether the flag has *line symmetry* and/or *rotational symmetry*. Identify all lines of symmetry and/or angles of rotation that map the figure onto itself. 14–16. See margin.



10. $\begin{bmatrix} A & B' & C' \\ -2 & -5 & -1 \\ 2 & 4 & 6 \end{bmatrix};$



11. $\begin{bmatrix} K' & L' & M' & N' \\ 5 & 2 & 3 & 5 \\ 0 & -3 & 1 & 3 \end{bmatrix};$

