8.3 Practice B

In Exercises 1 and 2, find the scale factor. Then list all pairs of congruent angles and write the ratios of the corresponding side lengths in a statement of proportionality.

1. $\triangle ABC \sim \triangle HIJ$ **2.** $WXYZ \sim STUV$



In Exercises 3 and 4, the polygons are similar. Find the value of x.



In Exercises 5 and 6, the figures are similar. Find the missing corresponding side length.

- **5.** Figure A has a perimeter of 60 inches and one of the side lengths is 5 inches. Figure B has a perimeter of 84 inches.
- **6.** Figure A has an area of 4928 square feet and one of the side lengths is 88 feet. Figure B has an area of 77 square feet.
- **7.** In the diagram, $\triangle ABC \sim \triangle ADE$.
 - **a.** Find the scale factor from $\triangle ABC$ to $\triangle ADE$.
 - **b.** Find the value of *x*.
 - **c.** Find $m \angle ABC$.
 - **d.** The perimeter of $\triangle ABC$ is about 42.4 units. Find the perimeter of the $\triangle ADE$.
 - **e.** The area of $\triangle ABC$ is about 71.75 square units. Find the area of the $\triangle ADE$.
 - **f.** Is $\overline{BC} \parallel \overline{DE}$? Explain your reasoning.

