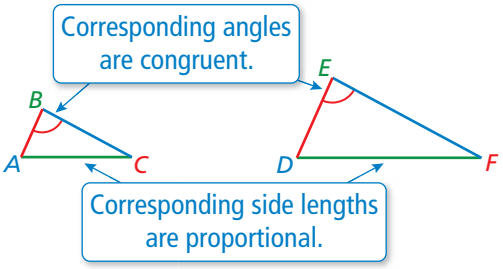
REVIEW: Similar Figures

Name _____

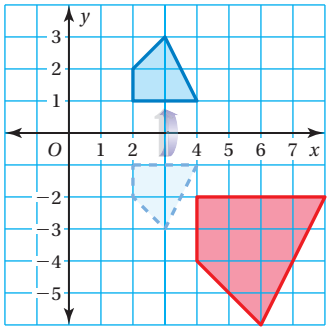
Key Concept and Vocabulary

Similar figures are the same shape, but not necessarily the same size.



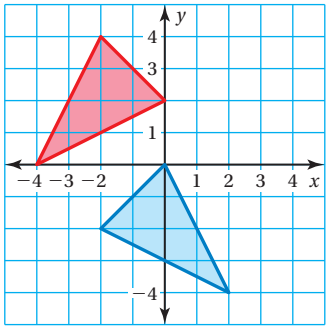
Visual Model

Two figures are similar when one can be obtained from the other by a similarity transformation.



Skill Example

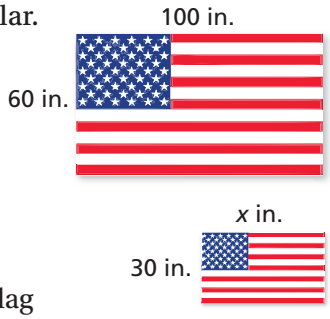
1.



A similarity transformation is to rotate the red figure 90° counterclockwise about the origin, and then translate the image 2 units to the right.

Application Example

2. The flags are similar. How long is the smaller flag?



$$\frac{60}{30} = \frac{100}{x}$$

$$x = 50$$

∴ The smaller flag is 50 inches long.

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Check your answers at BigIdeasMath.com.

Decide whether the two figures are similar.

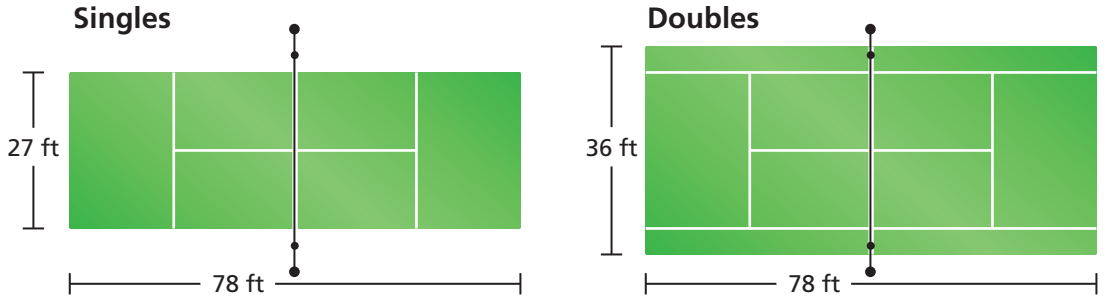
3. Triangle A: (1, 4), (3, 5), (4, 2)
Triangle B: (0, 5), (4, 7), (6, 1)

_____

4. Quadrilateral A: (−4, −2), (−2, 2), (2, −4), (−2, −4)
Quadrilateral B: (2, 2), (1, −1), (−1, 3), (1, 3)

_____

5. TENNIS COURTS Are the two tennis courts similar? Explain. _____



6. TENNIS COURTS A scale model of the doubles tennis court is 0.52 foot long. What is the width of the model? _____