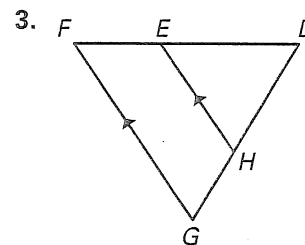
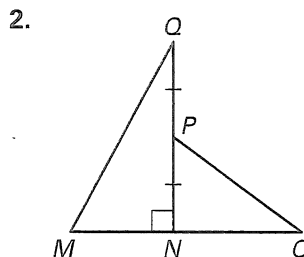
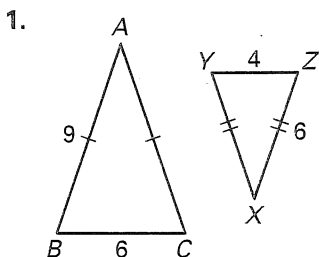


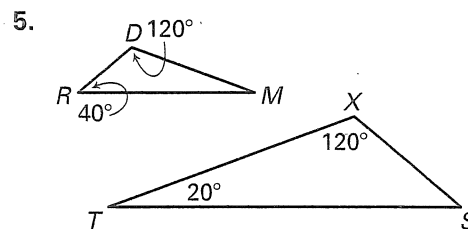
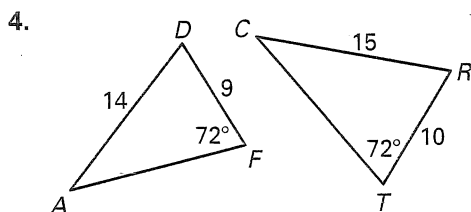
**Practice B**

For use with pages 488–496

Name a postulate or theorem that can be used to prove that the two triangles are similar. Then, write a similarity statement.



Are the triangles similar? If so, state the similarity and the postulate or theorem that justifies your answer.

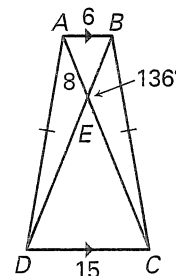


Draw the given triangles roughly to scale. Then, name a postulate or theorem that can be used to prove that the triangles are similar.

- The side lengths of  $\triangle ABC$  are 3, 4, and 6, and the side lengths of  $\triangle XYZ$  are 6, 8, and 12.
- In  $\triangle ABC$ ,  $m\angle A = 15^\circ$  and  $m\angle B = 80^\circ$ . In  $\triangle XYZ$ ,  $m\angle Y = 80^\circ$  and  $m\angle Z = 85^\circ$ .
- In  $\triangle ABC$ ,  $m\angle B = 60^\circ$ ,  $AB = 6$ , and  $BC = 12$ . In  $\triangle XYZ$ ,  $m\angle Y = 60^\circ$ ,  $XY = 3$ , and  $YZ = 6$ .

Use the diagram shown to complete the statements.

- $\triangle AEB \sim$  ?
- $m\angle DEC =$  ?
- $m\angle EBA =$  ?
- $EC =$  ?
- perimeter  $\triangle DEC$ : perimeter  $\triangle BEA =$  ?



In Exercises 14 and 15, use the diagram at the right.

To determine the height of a very tall pine tree, you place a mirror on the ground and stand where you can see the top of the tree, as shown.

- How tall is the tree?
- Your little sister wants to see the top of the tree also. However, she is only 4 feet tall. Leaving the mirror 2 feet from her feet, how far from the base of the tree should the mirror be placed?

