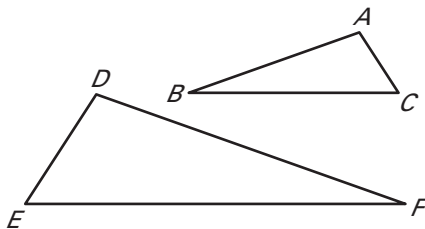


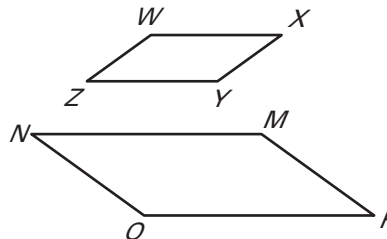
**LESSON**  
**6.3**
**Practice B**
*For use with pages 371–379*

List all pairs of congruent angles for the figures. Then write the ratios of the corresponding sides in a statement of proportionality.

1.  $\triangle ABC \sim \triangle DFE$



2.  $WXYZ \sim MNOP$



3. **Multiple Choice** Triangles  $ABC$  and  $DEF$  are similar. Which statement is not correct?

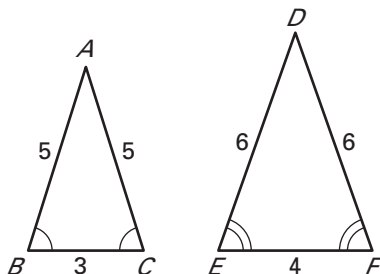
A.  $\frac{AB}{DE} = \frac{BC}{EF}$

B.  $\frac{CA}{FD} = \frac{AB}{DE}$

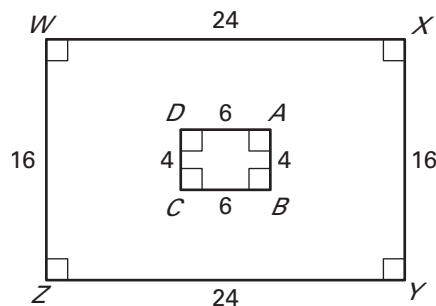
C.  $\angle A \cong \angle F$

Determine whether the polygons are similar. If they are, write a similarity statement and find the scale factor.

4.

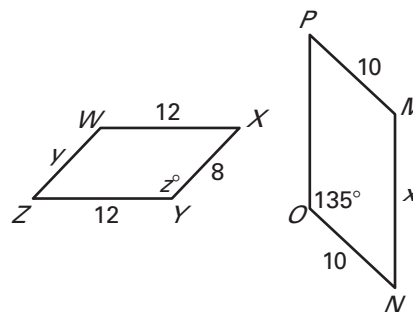


5.



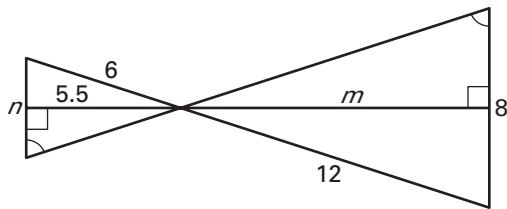
In the diagram,  $WXYZ \sim MNOP$ .

6. Find the scale factor of  $WXYZ$  to  $MNOP$ .
7. Find the values of  $x$ ,  $y$ , and  $z$ .
8. Find the perimeter of  $WXYZ$ .
9. Find the perimeter of  $MNOP$ .
10. Find the ratio of the perimeter of  $MNOP$  to the perimeter of  $WXYZ$ .

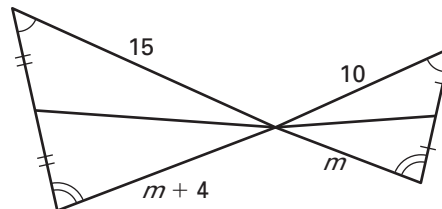


LESSON  
6.3**Practice B** *continued*  
For use with pages 371–379**The two triangles are similar. Find the values of the variables.**

11.



12.

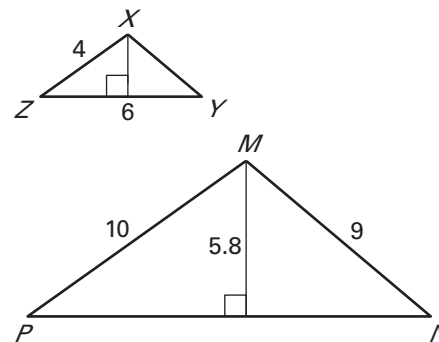
**In Exercises 13 and 14, use the following information.**

**Similar Triangles** Triangles  $RST$  and  $WXY$  are similar. The side lengths of  $\triangle RST$  are 10 inches, 14 inches, and 20 inches, and the length of an altitude is 6.5 inches. The shortest side of  $\triangle WXY$  is 15 inches long.

13. Find the lengths of the other two sides of  $\triangle WXY$ .
14. Find the length of the corresponding altitude in  $\triangle WXY$ .
15. **Multiple Choice** The ratio of one side of  $\triangle ABC$  to the corresponding side of a similar  $\triangle DEF$  is 4 : 3. The perimeter of  $\triangle DEF$  is 24 inches. What is the perimeter of  $\triangle ABC$ ?
- A. 18 inches                      B. 24 inches                      C. 32 inches

**In the diagram,  $\triangle XYZ \sim \triangle MNP$ .**

16. Find the scale factor of  $\triangle XYZ$  to  $\triangle MNP$ .
17. Find the unknown side lengths of both triangles.
18. Find the length of the altitude shown in  $\triangle XYZ$ .
19. Find and compare the areas of both triangles.

**In Exercises 20–22, use the following information.**

**Swimming Pool** The community park has a rectangular swimming pool enclosed by a rectangular fence for sunbathing. The shape of the pool is similar to the shape of the fence. The pool is 30 feet wide. The fence is 50 feet wide and 100 feet long.

20. What is the scale factor of the pool to the fence?
21. What is the length of the pool?
22. Find the area reserved strictly for sunbathing.