

Name \_\_\_\_\_ Date \_\_\_\_\_

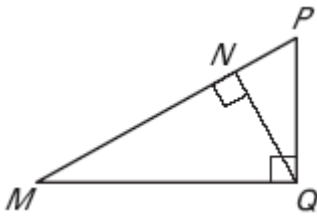
LESSON 7.3

**Practice C**

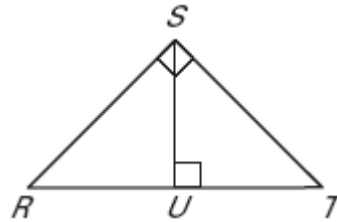
For use with pages 448-456

Write a similarity statement for the three similar triangles in the diagram. Then complete the proportion.

1.  $\frac{MQ}{PQ} = \frac{MN}{PQ}$

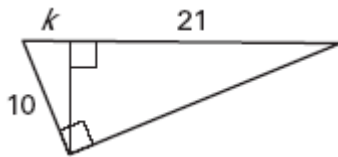


2.  $\frac{RU}{RT} = \frac{RS}{RT}$

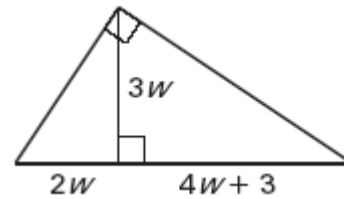


Find the value of the variable.

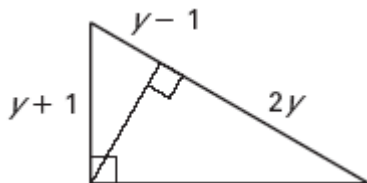
3.



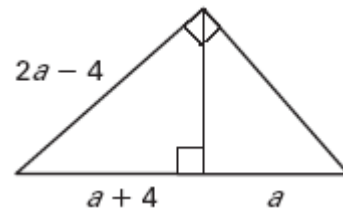
4.



5.

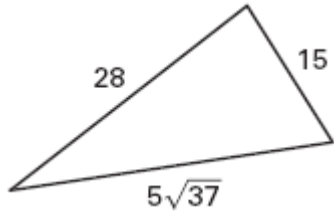


6.

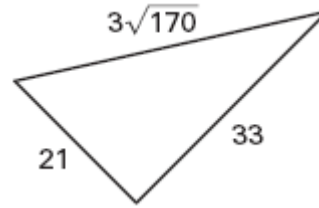


Tell whether the triangle is a right. If so, find the length of the altitude to the hypotenuse  
Round decimal answers to the nearest tenth.

7.

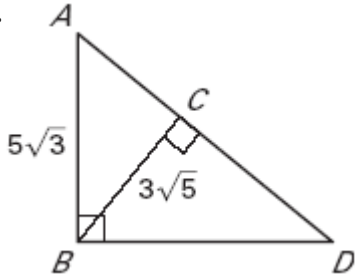


8.

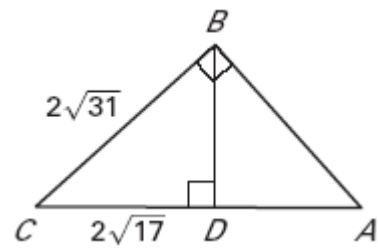


Use the Geometric Mean Theorems to find  $AC$  and  $BD$ .

9.



10.



11. **GIVEN:**  $\triangle XYZ$  is a right triangle with altitude.  
 $m\angle XYZ = 90^\circ$ ,  $XU = 3$ ,  $YU = 5$

**PROVE:**  $YZ = \frac{5\sqrt{34}}{3}$

| Statements   | Reasons  |
|--|----------|
| 1. $\triangle XYZ$ is a right $\triangle$ with altitude $\overline{YU}$ . $m\angle XYZ = 90^\circ$ | 1. _____ |
| 2. $\frac{XU}{YU} = \frac{YU}{UZ}$   | 2. _____ |
| 3. $XU = 3$ , $YU = 5$   | 3. _____ |
| 4. $\frac{3}{5} = \frac{5}{UZ}$  | 4. _____ |
| 5. $UZ = \frac{25}{3}$   | 5. _____ |
| 6. $(YU)^2 + (UZ)^2 = (YZ)^2$  | 6. _____ |
| 7. $YZ = \sqrt{(YU)^2 + (UZ)^2}$   | 7. _____ |
| 8. $YZ = \sqrt{(5)^2 + \left(\frac{25}{3}\right)^2}$   | 8. _____ |
| 9. $YZ = \frac{5\sqrt{34}}{3}$   | 9. _____ |

