

LESSON
11.4**Practice C**

For use with pages 736–742

Let a and b represent the lengths of the legs of a right triangle, and let c represent the length of the hypotenuse. Find the unknown length.

- | | | |
|-------------------------|--------------------------|------------------------|
| 1. $a = 9, b = 12$ | 2. $b = 25, c = 30$ | 3. $a = 4, b = 1.5$ |
| 4. $b = 2.5, c = 7$ | 5. $a = 4, b = 1.8$ | 6. $a = 2.6, b = 3.5$ |
| 7. $a = 14, b = 8.8$ | 8. $b = 1.4, c = 2.5$ | 9. $a = 0.2, b = 0.6$ |
| 10. $a = 10.5, b = 6.4$ | 11. $a = 14.1, c = 20.5$ | 12. $a = 0.3, b = 0.7$ |

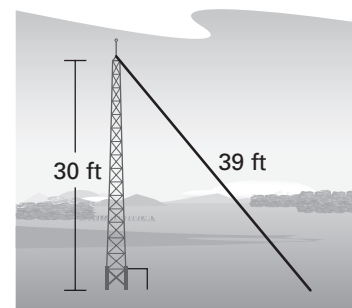
Find the unknown lengths.

13. A right triangle has one leg that is 4 inches shorter than the other leg. The hypotenuse is $\sqrt{106}$ inches. Find the lengths of the legs.
14. A right triangle has one leg that is 2 times as long as the other leg. The hypotenuse is $\sqrt{80}$ inches. Find the lengths of the legs.
15. A right triangle has one leg that is $\frac{3}{5}$ of the length of the other leg. The hypotenuse is $2\sqrt{34}$ inches. Find the lengths of the legs.

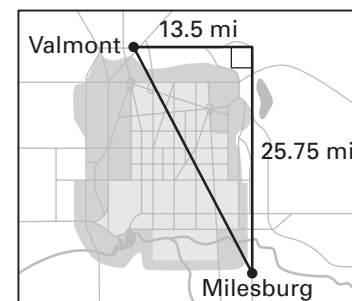
Tell whether the triangle with the given side lengths is a right triangle.

16. 4.5, 6, 7.5 17. 15, 60, 61 18. 12, 71, 72

19. **Guy Wire** A tower that is being constructed will be 30 feet tall. The correct length of the guy wire that will help tether the tower should be 39 feet long. If the correct length wire is used, how far away from the tower should the guy wire be attached to the ground? Round your answer to the nearest foot.



20. **Shortest Route** You are traveling from Valmont to Milesburg. You can avoid the city traffic by taking the L-shaped route shown. If you could travel straight through the city, how many miles could you save? Round your answer to the nearest mile.



21. **Flag** Each wilderness troop at a camping outing has created its own flag. Your troop's flag is triangular with side lengths of 15 inches, 18 inches, and 23 inches. Is the flag a right triangle? *Explain.*