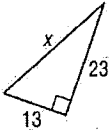


7-2 Practice

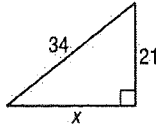
The Pythagorean Theorem and Its Converse

Find x .

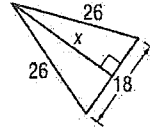
1.



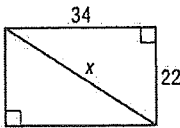
2.



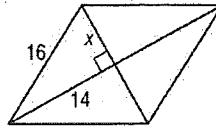
3.



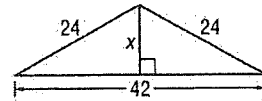
4.



5.



6.



Determine whether $\triangle GHI$ is a right triangle for the given vertices. Explain.

7. $G(2, 7), H(3, 6), I(-4, -1)$

8. $G(-6, 2), H(1, 12), I(-2, 1)$

9. $G(-2, 1), H(3, -1), I(-4, -4)$

10. $G(-2, 4), H(4, 1), I(-1, -9)$

Determine whether each set of measures can be the measures of the sides of a right triangle. Then state whether they form a Pythagorean triple.

11. 9, 40, 41

12. 7, 28, 29

13. 24, 32, 40

14. $\frac{9}{5}, \frac{12}{5}, 3$

15. $\frac{1}{3}, \frac{2\sqrt{2}}{3}, 1$

16. $\frac{\sqrt{4}}{7}, \frac{2\sqrt{3}}{7}, \frac{4}{7}$

17. **CONSTRUCTION** The bottom end of a ramp at a warehouse is 10 feet from the base of the main dock and is 11 feet long. How high is the dock?

