10-4   Skills Practice

The Pythagorean Theorem

Find the length of the hypotenuse of each right triangle. Round to the nearest tenth, if necessary.
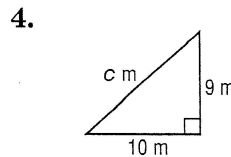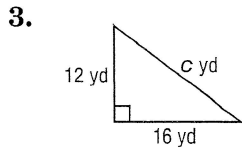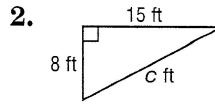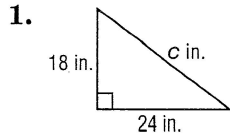
1.

18 in. c in. 24 in.

2.

15 ft 8 ft c ft

3.

12 yd c yd 16 yd

4.

c m 9 m 10 m

5.

c m 4.2 m 3.1 m

6.

7.6 cm 5.4 cm c cm
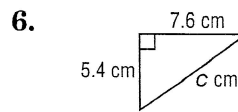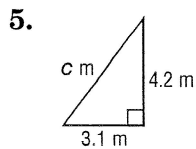
If c is the measure of the hypotenuse, find each missing measure. Round to the nearest tenth, if necessary.

7. $a = ?, b = 24, c = 26$

8. $a = 16, b = ?, c = 34$

9. $a = 24, b = ?, c = 40$

10. $a = 5, b = ?, c = 7$

11. $a = ?, b = 32, c = 39$

12. $a = 21, b = ?, c = 48$

13. $a = 18, b = 29, c = ?$

14. $a = ?, b = 36, c = 49$

15. $a = 8, b = ?, c = 12$

16. $a = 14, b = 21, c = ?$

17. $a = ?, b = 30, c = 40$

18. $a = 4, b = ?, c = 7$

19. $a = 13, b = 18, c = ?$

20. $a = ?, b = 55, c = 75$

The lengths of three sides of a triangle are given. Determine whether each triangle is a right triangle.

21. 14 m, 5 m, 4 m

22. 3 in., 4 in., 5 in.

10-5 / Skills Practice

The Distance Formula

Find the distance between each pair of points. Round to the nearest tenth, if necessary.

1. $A(2, 4), B(1, 3)$

2. $P(5, 10), Q(-1, 1)$

3. $G(3, -1), H(5, 6)$

4. $C(-2, -6), D(-7, 1)$

5. $E(-6, 2), F(4, 1)$

6. $J(-5, -3), K(4, -2)$

7. $M(-5, -5), N(3, -4)$

8. $V(4, 7), W(1, 6)$

9. $X(4, 6), Y(-3, -7)$

10. $R(0, 0), S(-1, -1)$

11. $T(7, 3), U(-2, -2)$

12. $A(6, 2), B(1, 3)$

13. $V(2, -6), W(4, -7)$

14. $C(6, 2), D(4, 7)$

15. $X(7, 8), Y(-7, 1)$

16. $E(7, 3), F(-1, 4)$

17. $A(5, 10), B(-4, -3)$

18. $G(-6, 2), H(2, 4)$

GEOMETRY Classify each triangle by its sides. Then find the perimeter of each triangle. Round to the nearest tenth.

19.

20.
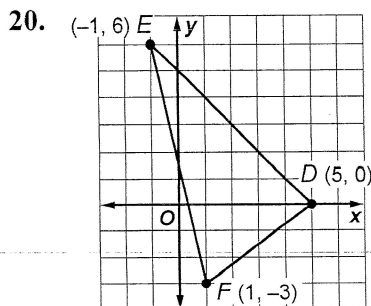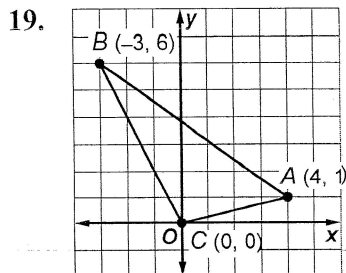
GEOMETRY The coordinates of the vertices of a triangle are given. Find the perimeter of each triangle. Round to the nearest tenth, if necessary.

21. $J(4, 5), K(-2, 2),$ and $L(-4, 4)$

22. $E(3, 5), F(4, 8),$ and $G(-1, 6)$

23. $X(8, 1), Y(3, 3),$ and $Z(5, -3)$

24. $A(-3, 5), B(-3, -1),$ and $C(7, -1)$