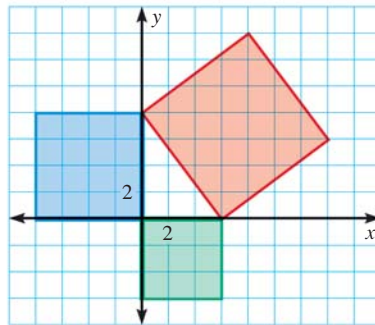29. **TAKS REASONING** What is the area of the largest square in the coordinate plane shown?
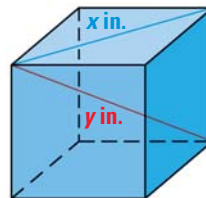
    (A) 100 square units

    (B) 64 square units

    (C) 36 square units

    (D) 25 square units

30. **WRITING** Given that two side lengths of a right triangle are 11 inches and 6 inches, is it possible to find the length of the third side? *Explain*.

31. **REASONING** A *Pythagorean triple* is a group of integers a, b, and c that represent the side lengths of a right triangle. For example, the integers 3, 4, and 5 form a Pythagorean triple. Choose any two positive integers m and n such that $m < n$. Then find a, b, and c as follows: $a = n^2 - m^2$, $b = 2mn$, and $c = n^2 + m^2$. Show that the numbers you generated form a Pythagorean triple. Then use the converse of the Pythagorean theorem to show that the equations for a, b, and c always generate Pythagorean triples.

32. **CHALLENGE** The edge length of the cube is 7 inches.

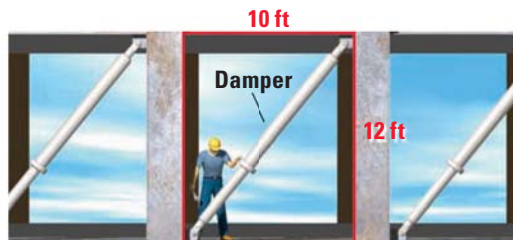   **a.** Find the value of x.

    b. Find the value of y.

PROBLEM SOLVING

33. **ARCHITECTURE** An earthquake-resistant building has dampers built into its structure to help minimize damage caused by an earthquake. A section of the structural frame of such a building is shown. What is the length of the damper? Round your answer to the nearest foot.

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34. **SAILS** A sail has the shape of a triangle. The side lengths are 146 inches, 131 inches, and 84 inches. Is the sail a right triangle? *Explain*.

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