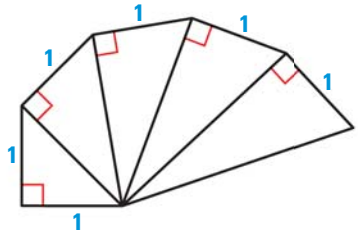
35. FLATIRON BUILDING A top view of the Flatiron Building in New York City is shown. The triangle indicates the basic shape of the building's roof. Is the triangle a right triangle? *Explain*.

36. SCREEN SIZES The size of a television is indicated by the length of a diagonal of the television screen. The aspect ratio of a television screen is the ratio of the length of the screen to the width of the screen. The size of a particular television is 30 inches, and its aspect ratio is 4 : 3. What are the width and the length of the television screen?

37. TAKS REASONING The *Wheel of Theodorus* is a figure formed by a chain of right triangles with consecutive triangles sharing a common side. The hypotenuse of one triangle becomes a leg of the next, as shown.



a. Calculate What is the length of the longest hypotenuse in the diagram?

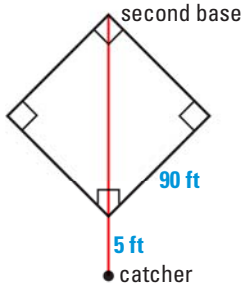
b. Extend Extend the diagram to include two more triangles. What is the length of the longest hypotenuse in the new diagram?

c. Analyze Find a formula for the length of the hypotenuse of the nth triangle. *Explain* how you found your answer.

38. CHALLENGE A baseball diamond has the shape of a square with side lengths of 90 feet. A catcher wants to get a player running from first base to second base out, so the catcher must throw the ball to second base before the runner reaches second base.

a. The catcher is 5 feet behind home plate. How far does the catcher have to throw the ball to reach second base? Round your answer to the nearest foot.

b. The catcher throws the ball at a rate of 90 feet per second when the player is 30 feet away from second base. Will the catcher get the player out if the player is running at a rate of 22 feet per second? *Explain*.



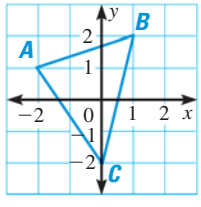
Not drawn to scale

MIXED REVIEW FOR TAKS

TAKS PRACTICE at classzone.com

REVIEW
TAKS Preparation p. 350; TAKS Workbook

39. TAKS PRACTICE $\triangle ABC$ is shown in the graph at the right. Find the coordinates of point C if $\triangle ABC$ is translated 3 units to the right and 2 units down. *TAKS Obj. 6*



Ⓐ (3, 0) Ⓑ (−3, 4)

Ⓒ (3, −4) Ⓓ (−3, 0)

EXTRA PRACTICE for Lesson 11.4, p. 948 ONLINE QUIZ at classzone.com