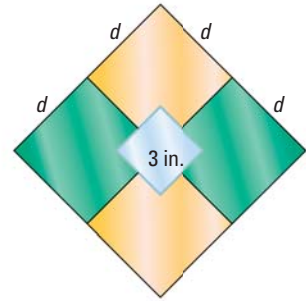**51. FRAMING** A square mirror is framed with stained glass as shown. Each corner of the frame began as a square with a side length of d inches before it was cut to fit the mirror. The mirror has a side length of 3 inches. The area of the stained glass frame is 91 square inches.

a. Write a polynomial that represents the area of the stained glass frame.

b. What is the side length of the frame?

52. CHALLENGE You have 120 folding chairs to set up in a park for an outdoor play. You want each row to have an odd number of chairs. You also want each row after the first to have 2 more chairs than the row in front of it. The first row will have 15 chairs.

a. Copy and complete the table below.

n	nth odd integer	Sum of first n odd integers	Sum as a power
1	1	1	1^2
2	3	$1 + 3 = 4$	2^2
3	5	$1 + 3 + 5 = 9$	?
4	7	?	?
5	9	?	?

b. *Describe* the relationship between n and the sum of the first n odd integers. Then find the sum of the first 10 odd integers.

c. *Explain* how to find the sum of the odd integers from 11 to 21.

d. How many rows of chairs will you need for the outdoor play? *Explain* your thinking.
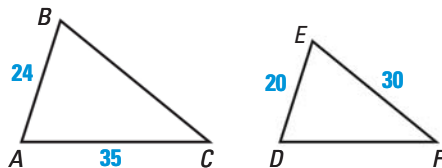
MIXED REVIEW FOR TAKS

TAKS PRACTICE at classzone.com

53. ◆ **TAKS PRACTICE** $\triangle ABC \sim \triangle DEF$. What scale factor was used to transform $\triangle ABC$ to $\triangle DEF$? *TAKS Obj. 6*

(A) $\frac{4}{5}$ **(B)** $\frac{5}{6}$ **(C)** $\frac{6}{5}$ **(D)** $\frac{7}{4}$

54. ◆ **TAKS PRACTICE** A teacher gives a test to 24 students. The teacher wants to use the test scores to divide the students into two groups of approximately equal size. Which measure of the test scores would be most useful to the teacher? *TAKS Obj. 9*

(F) Mean   **(G)** Median   **(H)** Mode   **(J)** Range