

44. **TAKS REASONING** The iris of an eye surrounds the pupil. It regulates the amount of light entering the eye by opening and closing the pupil. For parts (a)–(c) below, leave your answers in terms of π .



- a. Write a polynomial that represents the pupil's radius.
 b. Write a polynomial that represents the pupil's area.
 c. What is the least possible area and the greatest possible area of the pupil? *Explain* how you found your answers.
45. **CHALLENGE** You use 100 feet of fencing to form a square with a side length of 25 feet. You want to change the dimensions of the enclosed region. For every 1 foot you increase the width, you must decrease the length by 1 foot. Write a polynomial that gives the area of the rectangle after you increase the width by x feet and decrease the length by x feet. *Explain* why *any* change in dimensions results in an area less than that of the original square.



MIXED REVIEW FOR TAKS

TAKS PRACTICE at classzone.com

REVIEW

Lesson 1.6;
TAKS Workbook

46. **TAKS PRACTICE** The table gives the cost for one person to stay at a campground for different lengths of time. Which equation best describes the relationship between the cost in dollars, c , and the number of days, t ? **TAKS Obj. 3**

Time (days)	Cost (dollars)
2	55
3	70
4	85

- (A) $c = 15t$ (B) $c = 15t + 25$
 (C) $c = 25t - 5$ (D) $t = \frac{c}{15}$

QUIZ for Lessons 9.1–9.3

Find the sum, difference, or product.

- $(x^2 - 3x + 5) + (-2x^2 + 11x + 1)$ (p. 554)
- $(8y^3 - 7y^2 + y) - (9y^2 - 5y + 7)$ (p. 554)
- $(2r + 11)(r - 6)$ (p. 562)
- $(m + 3)(-2m^2 + 5m - 1)$ (p. 562)
- $(2 + 8p)(2 - 10p)$ (p. 562)
- $(15 - 2s)^2$ (p. 569)
- $(5w + 9z)^2$ (p. 569)
- $(5x - 4y)(5x + 4y)$ (p. 569)
- AREA** The length of a rectangular rug is 2 times its width. The rug is centered in a rectangular room. Each edge is 3 feet from the nearest wall. Write a polynomial that represents the area of the room. (p. 564)

