61. RATE OF HEALING The area of a wound decreases exponentially with time. The area A of a wound after t days can be modeled by $A = A_0 e^{-0.05t}$ where A_0 is the initial wound area. If the initial wound area is 4 square centimeters, what is the area after 14 days?

62. CHALLENGE The height y (in feet) of the Gateway Arch in St. Louis, Missouri, can be modeled by the function $y = 757.7 - 63.85(e^{x/127.7} + e^{-x/127.7})$ where x is the horizontal distance (in feet) from the center of the arch.

a. Use a graphing calculator to graph the function. How tall is the arch at its highest point?

b. About how far apart are the ends of the arch?

MIXED REVIEW FOR TAKS

TAKS PRACTICE at classzone.com

REVIEW
Skills Review Handbook p. 1002; TAKS Workbook

63. TAKS PRACTICE Which of the following shows that the conjecture is false? "The square root of a number x is always less than x." *TAKS Obj. 10*

Ⓐ $x = \frac{1}{4}$ Ⓑ $x = 4$ Ⓒ $x = 48$ Ⓓ $x = 900$

REVIEW
TAKS Preparation p. 408; TAKS Workbook

64. TAKS PRACTICE Quadrilateral $MNPQ$ is a rhombus. $\angle P$ measures 55°. What are the measures of $\angle M$, $\angle N$, and $\angle Q$? *TAKS Obj. 6*

Ⓕ 55°, 35°, and 35° Ⓖ 55°, 55°, and 55°

Ⓗ 55°, 110°, and 110° Ⓙ 55°, 125°, and 125°

QUIZ *for Lessons 7.1–7.3*

Graph the function. State the domain and range.

1. $y = 2 \cdot 3^{x-2}$ *(p. 478)* **2.** $y = \left(\frac{2}{5}\right)^x$ *(p. 486)* **3.** $f(x) = \left(\frac{3}{8}\right)^x + 2$ *(p. 486)*

Simplify the expression. *(p. 492)*

4. $3e^4 \cdot e^3$ **5.** $(-5e^{3x})^3$ **6.** $\frac{e^{4x}}{5e}$ **7.** $\frac{8e^{5x}}{6e^{2x}}$

Graph the function. State the domain and range. *(p. 492)*

8. $y = 2e^x$ **9.** $y = 3e^{-2x}$ **10.** $y = e^{x+1} - 2$ **11.** $g(x) = 4e^{-3x} + 1$

12. TV SALES From 1997 to 2001, the number n (in millions) of black-and-white TVs sold in the United States can be modeled by $n = 26.8(0.85)^t$ where t is the number of years since 1997. Identify the decay factor and the percent decrease. Graph the model and state the domain and range. Estimate the number of black-and-white TVs sold in 1999. *(p. 478)*

13. FINANCE You deposit $1200 in an account that pays 4.5% annual interest compounded continuously. What is the balance after 5 years? *(p. 492)*

EXTRA PRACTICE for Lesson 7.3, p. 1016
ONLINE QUIZ at classzone.com