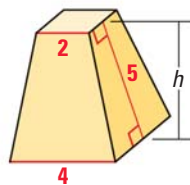


62. **CHALLENGE** You are trying to determine a truncated pyramid's height, which cannot be measured directly. The height  $h$  and slant height  $\ell$  of the truncated pyramid are related by the formula shown below.

$$\ell = \sqrt{h^2 + \frac{1}{4}(b_2 - b_1)^2}$$



In the given formula,  $b_1$  and  $b_2$  are the side lengths of the upper and lower bases of the pyramid, respectively. If  $\ell = 5$ ,  $b_1 = 2$ , and  $b_2 = 4$ , what is the height of the pyramid?



## MIXED REVIEW FOR TAKS

**TAKS PRACTICE** at classzone.com

### REVIEW

Lesson 4.4;  
TAKS Workbook

63. **TAKS PRACTICE** What are the zeros of the function  $y = 12x^2 + 11x - 15$ ?

**TAKS Obj. 5**

- Ⓐ  $-\frac{5}{3}, \frac{3}{4}$       Ⓑ  $\frac{5}{3}, -\frac{3}{4}$       Ⓒ  $-1, \frac{5}{4}$       Ⓓ  $2, \frac{5}{2}$

### REVIEW

Lesson 2.4;  
TAKS Workbook

64. **TAKS PRACTICE** Which equation represents the line that contains the point  $(-4, 2)$  and has slope  $-\frac{5}{2}$ ? **TAKS Obj. 3**

- Ⓕ  $-5x - 2y = 1$       Ⓖ  $-2x + 5y = 18$   
Ⓖ  $2x - 5y = -16$       Ⓙ  $5x + 2y = -16$

## QUIZ for Lessons 6.5–6.6

**Graph the function. Then state the domain and range. (p. 446)**

1.  $y = 4\sqrt{x}$       2.  $y = \sqrt{x} + 3$       3.  $g(x) = \sqrt{x+2} - 5$   
4.  $y = -\frac{1}{2}\sqrt[3]{x}$       5.  $f(x) = \sqrt[3]{x} - 4$       6.  $y = \sqrt[3]{x-3} + 2$

**Solve the equation. Check for extraneous solutions. (p. 452)**

7.  $\sqrt{6x+15} = 9$       8.  $\frac{1}{4}(7x+8)^{3/2} = 54$       9.  $\sqrt[3]{3x+5} + 2 = 5$   
10.  $x - 3 = \sqrt{10x - 54}$       11.  $\sqrt{4x-4} = \sqrt{5x-1} - 1$       12.  $\sqrt[3]{\frac{4}{5}x-9} = \sqrt[3]{x-6}$

13. **ASTRONOMY** According to Kepler's third law of planetary motion, the function  $P = 0.199a^{3/2}$  relates a planet's orbital period  $P$  (in days) to the length  $a$  (in millions of kilometers) of the orbit's minor axis. The orbital period of Mars is about 1.88 years. What is the length of the orbit's minor axis? (p. 452)

