

EXAMPLE 4

on p. 438
for Ex. 35

35. **CHEMISTRY** In your chemistry lab, you have a bottle of 1% hydrochloric acid solution and a bottle of 5% hydrochloric acid solution. You need 100 milliliters of a 3% hydrochloric acid solution for an experiment. How many milliliters of each solution do you need to mix together?
36. **MONEY** Laura has \$4.50 in dimes and quarters. She has 3 more dimes than quarters. How many quarters does she have?
37. **TAKS REASONING** A gazelle can run 73 feet per second for several minutes. A cheetah can run 88 feet per second, but it can sustain this speed for only 20 seconds. A gazelle is 350 feet from a cheetah when both animals start running. Can the gazelle stay ahead of the cheetah? *Explain.*

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38. **CHALLENGE** A gardener needs 6 bushels of a potting medium of 40% peat moss and 60% vermiculite. He decides to add 100% vermiculite to his current potting medium that is 50% peat moss and 50% vermiculite. The gardener has 5 bushels of the 50% peat moss and 50% vermiculite mix. Does he have enough of the 50% peat moss and 50% vermiculite mix to make 6 bushels of the 40% peat moss and 60% vermiculite mix? *Explain.*



TAKS PRACTICE at classzone.com

MIXED REVIEW FOR TAKS

REVIEW

Lesson 1.3;
TAKS Workbook

39. **TAKS PRACTICE** Jim wants to write an expression that will always produce a positive number. Which of the following expressions is positive for any real number, x ? **TAKS Obj. 2**

(A) $2x - x$ (B) $x^2 - 0.01$ (C) $|x + 2| - 1$ (D) $x^2 + 2$

REVIEW

TAKS Preparation
p. 836;
TAKS Workbook

40. **TAKS PRACTICE** A box that is a rectangular prism has a volume of 150 cubic centimeters. Another box has twice the length, twice the width, and twice the height of the first box. What is the volume of the second box? **TAKS Obj. 8**

(F) 300 cm^3 (G) 450 cm^3 (H) 1200 cm^3 (J) 1500 cm^3

QUIZ for Lessons 7.1–7.2

Solve the linear system by graphing. Check your solution. (p. 427)

- | | | |
|---------------------------------|----------------------------------|------------------------------------|
| 1. $x + y = -2$
$-x + y = 6$ | 2. $x - y = 0$
$5x + 2y = -7$ | 3. $x - 2y = 12$
$-3x + y = -1$ |
|---------------------------------|----------------------------------|------------------------------------|

Solve the linear system using substitution. (p. 435)

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|----------------------------------|------------------------------------|------------------------------------|
| 4. $y = x - 4$
$-2x + y = 18$ | 5. $y = 4 - 3x$
$5x - y = 22$ | 6. $x = y + 9$
$5x - 3y = 7$ |
| 7. $2y + x = -4$
$y - x = -5$ | 8. $5x - 4y = 27$
$-2x + y = 3$ | 9. $3x - 5y = 13$
$x + 4y = 10$ |

