

42. **TAKS REASONING** A mole is a unit of measurement used in chemistry. The masses of one mole of three elements are in the table.

Element	Mass of 1 mole
Hydrogen	1.008 grams
Carbon	12.011 grams
Oxygen	15.999 grams

- a. A 100 gram sample of ascorbic acid contains 4.58 grams of hydrogen. To the nearest tenth, find the number of moles of hydrogen.
- b. A 100 gram sample of ascorbic acid contains 54.5 grams of oxygen. To the nearest tenth, find the number of moles of oxygen in the sample.
- c. The ratio of moles of hydrogen to moles of carbon in ascorbic acid is 4:3. How does this ratio compare with the ratio of moles of hydrogen to moles of oxygen in ascorbic acid? *Explain.*
43. **CHALLENGE** At a typical National Football League game, the ratio of females to males in attendance is 2:3. Estimate the number of male and female spectators at a game that has 75,000 spectators.



## MIXED REVIEW FOR TAKS

**TAKS PRACTICE** at classzone.com

### REVIEW

Lesson 1.6;  
TAKS Workbook

44. **TAKS PRACTICE** The function  $y = 3x + 6$  has a domain of 2, 3, 5, and 8. What is the function's range? **TAKS Obj. 2**

- (A) 6, 9, 12, and 15                      (B) 12, 15, 18, and 21  
(C) 12, 15, 21, and 30                  (D)  $-\frac{4}{3}$ ,  $-1$ ,  $-\frac{1}{3}$ , and  $\frac{2}{3}$

### REVIEW

TAKS Preparation  
p. 702;  
TAKS Workbook

45. **TAKS PRACTICE** You pour 50 cubic centimeters of water into a cylindrical cup that has a height of 8 centimeters. The water fills half of the cup. Which is the best estimate of the radius of the cup? **TAKS Obj. 8**

- (F) 1 cm                      (G) 2 cm                      (H) 4 cm                      (J) 5 cm

## QUIZ for Lessons 3.4–3.6

Solve the equation, if possible. (p. 154)

1.  $y - 2 = y + 2$                       2.  $2x - 14 = -3x + 6$                       3.  $10z - 4 = 2(5z - 2)$   
4.  $6m + 5 - 3m = 7(m - 1)$                       5.  $2(7 - g) = 9g + 14 - 11g$                       6.  $13k + 3(k + 11) = 8k - 7$   
7.  $\frac{1}{4}(8j - 3) = 2j - 3$                       8.  $8 - 4w = \frac{1}{3}(6w - 12)$                       9.  $\frac{2}{5}(10t - 50) = 4(9 - 6t)$

Solve the proportion. Check your solution. (pp. 162, 168)

10.  $\frac{24}{20} = \frac{x}{5}$                       11.  $\frac{6}{-7} = \frac{3z}{42}$                       12.  $\frac{14}{12} = \frac{w + 11}{18}$   
13.  $\frac{18}{5a} = \frac{3}{-5}$                       14.  $\frac{10}{17} = \frac{k}{2k - 3}$                       15.  $\frac{h - 1}{3} = \frac{2h + 1}{9}$

16. **GEOMETRY** The ratio of the length to the width of a rectangle is 5:4. The length of the rectangle is 60 inches. What is the width? (p. 168)

