B. Three of the tomato gardens have side lengths of 6 feet, 10 feet, and 13 feet.

1. Ahmed uses the expression $s + 2 + s + 2 + s + 2 + s + 2$ to find the perimeter after the border of marigolds is added. Use this expression to find the perimeter of each size garden.
2. Shada uses the expression $4(s + 2)$ to find the perimeter after the border of marigolds is added. Use this expression to find the perimeter of each size garden.
3. What do you notice about the perimeter of each garden found using the different expressions? Explain what that tells you about the expressions.

C. Their uncle says that the outside perimeter of any garden also could be found using the expression $4s + 8$. Is this expression equivalent to those written by Ahmed and Shada? Explain your reasoning using the garden with side lengths of 6 feet.

Exercises

In Exercises 1–4, write an algebraic expression or equation for each.

1. five years older than Jamal's age
2. The area is the length of a side squared.
3. The price is \$1.35 per flower plus \$12.50 for the vase.
4. The cost of the meal plus the 15% tip came to \$12.95.
5. Super Locks charges \$3,975 to install a security system and \$6.00 per month to monitor the system and respond to alerts. Fail Safe charges \$995 to install and \$17.95 per month. Write an equation for each company relating its total cost to the number of months.
6. Maggie lives 1,250 meters from school. Ming lives 800 meters from school. Maggie walks at an average speed of 70 meters per minute, while Ming walks at an average speed of 40 meters per minute. Write equations that show Maggie and Ming's distances from school t minutes after they leave their homes.
7. Chris has \$12 to spend on prints from his digital camera. He wants one 5-in. $\times$ 7-in. print and some 4-in. $\times$ 6-in. prints. Write an equation to find how many prints he can order if the price of each 5-in. $\times$ 7-in. print is \$1.40 and the 4-in. $\times$ 6-in. prints are \$.20 each.
8. Jamal has a tutoring job. He charges \$15 per hour. Next month, he expects his expenses to be \$30. Write an equation to find the number of hours he must work next month to make a profit of \$300.

Write an algebraic expression for each situation.

9. the cost of x apples at \$0.49 each

10. the number of hits a 0.306 batter gets in b times at bat

11. the number of minutes it takes to read p pages at 10 minutes per page

12. the money left on a \$20 gift card after spending y dollars

13. the distance traveled over t hours at r miles per hour

Evaluate each algebraic expression for $a = 12$ and $b = 3$.

14. $a - 2$ **15.** $5a$ **16.** $a + b$ **17.** $\frac{3a}{2b}$

Evaluate each algebraic expression for $d = \frac{3}{4}$, $e = \frac{4}{9}$, and $f = \frac{1}{2}$.

18. $d + f$ **19.** de **20.** $f - e$ **21.** $4d + 2f$

Write a situation that could describe each algebraic expression.

22. $a + 24$ **23.** $365 - d$ **24.** $7w$ **25.** $\frac{m}{55}$

26. At a craft store, each package of beads costs \$3.95.

a. Write an algebraic expression for the cost for p packages of beads.

b. Amy gives the sales clerk \$20 for p packages of beads. Write an algebraic expression to represent Amy's change.

c. What is the greatest number of packages that Amy can buy with \$20?

For Exercises 27–34, decide which operation is needed to isolate the variable. Solve the equation.

27. $a + 6 = 14$ **28.** $b - 3 = 9$

29. $4d = 12$ **30.** $7 + t = 15$

31. $\frac{x}{2} = 5$ **32.** $\frac{n}{9} = 6$

33. $y - 13 = 29$ **34.** $11h = 132$

35. Greg counted 11 people who got on the bus at the last stop. Now every seat is filled. How many people were on the bus before the stop if the bus has seats for 42 people?

36. There are four dozen daisies in a vase. If every person receives three daisies until the daisies are gone, how many people will get daisies?

37. A flower garden has 18 square feet of space. A packet of seeds fills 2 square feet. How many packets of seeds are needed to fill the garden?

38. Becky wants to solve the equation $3x = 18$. She says that $18 - 3 = 15$, so $x = 15$. Explain to Becky how to find the correct answer.