

VOCABULARY

composite number
prime number
situation equation
solution equation

► **Vocabulary**

Choose the best term from the box.

1. A _____ shows the operation that can be used to solve a problem. (Lessons 4-2, 4-3)
2. A number greater than 1 that has 1 and itself as its only factor pair is a _____. (Lesson 4-10)
3. A _____ shows the structure of the information in a problem. (Lessons 4-2, 4-3)

► **Concepts and Skills**

4. Explain how the equation for *4 is 2 more than 2* is different from the equation for *4 is 2 times as many as 2*. (Lessons 4-4, 4-5, 4-6)

5. Explain how you could use rectangles and circles to show the following pattern: A B B A B B A B B. (Lesson 4-11)

6. Dori wrote this problem: Mrs. Ramos has 1,352 stamps. She buys some more stamps. Now she has 1,943 stamps. How many stamps did she buy? Explain why the situation equation $1,352 + s = 1,943$ represents Dori's problem. (Lesson 4-2)



Solve for \square or n . (Lesson 4-1)

7. $(18 - 9) \cdot 3 = \square \cdot 3$

$\square =$ _____

8. $(35 + 50) - (25 \div 5) = n$

$n =$ _____

List all factor pairs for each number. (Lesson 4-10)

9. 47

10. 28

Write whether each number is *prime* or *composite*. (Lesson 4-10)

11. 98

12. 61

Tell whether each number is a multiple of 7. Write *yes* or *no*. (Lesson 4-10)

13. 36

14. 84

Use the rule to find the next three terms in the pattern. (Lesson 4-11)

15. 6, 12, 24, 48, ...

Rule: multiply by 2

16. 55, 95, 135, 175, ...

Rule: add 40

17. 4, 12, 36, 108, ...

Rule: multiply by 3

Describe the next term of each pattern. (Lesson 4-11)





► Problem Solving

For Problems 20–21, write an equation to solve the problem.
(Lessons 4-2, 4-3)

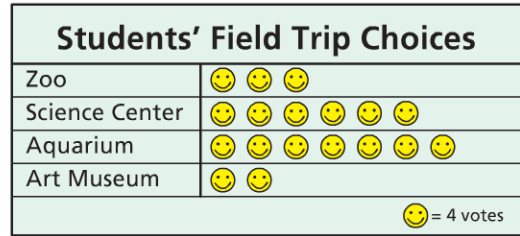
20. The Appalachian Trail is a hiking trail that runs from Maine to Georgia and is approximately 2,160 miles long. Suppose the Andersons want to hike 9 miles per day along an 864-mile section of the trail from New York to Georgia. On how many days will the Andersons hike 9 miles?

21. The library had a large collection of books. Then the librarian ordered 2,200 more books. Now there are 13,327 books. How many books did the library have at the start?



For Problems 22–23, use the pictograph.
Write an equation to solve each
comparison problem. (Lessons 4-4, 4-5, 4-6)

22. How many fewer students voted for the zoo than voted for the aquarium?



23. How many times as many students voted for the science center as voted for the art museum?

For Problems 24–25, use an equation to solve.
(Lessons 4-7, 4-8, 4-9)

24. Rita and Cody sold refreshments at the football game. They sold 6 sandwiches, 8 bags of popcorn, and 20 bottles of water. The sandwiches cost \$5 each. The bags of popcorn cost \$2 each. The bottles of water cost \$1 each. How much money in all did Rita and Cody make?

25. **Extended Response** A bakery had 2 trays with 28 muffins on each tray. The bakery had 4 trays of cupcakes with 12 cupcakes on each tray. On Monday, the bakery sold 12 cupcakes.

- a. How many muffins and cupcakes were left in all? Explain.

- b. How can you determine if your answer is reasonable?
