Factors

## Another Look!

Find the factors and factor pairs for 8.
1 group of 8
or 8 groups of 1
 $8 \times 1$

When multiplying two numbers, both numbers are factors of the product.

2 groups of 4
or 4 groups of 2


The factor pairs are 1 and 8,2 and 4 .
The factors of 8 are $1,2,4$, and 8 .

For 1-6, write the factor pairs for each number.

1. 75

1 and
and 25
and 15
2. 28
and 28
and 14
4 and
5. 77
6. 23
4. 47

For 7-15, write the factors of each number. Use counters to help as needed.
7. 74
8. 58
9. 44
10. 72
11. 57
12. 10
13. 7
14. 60
15. 66
16. Mr. Matthews purchases 22 boxes of pencils for 5 fourth-grade classes. Each box contains 45 pencils. How many pencils will each class receive?
17. Damita wants to read a 257-page book in one week. She plans to read 36 pages each day. Will she reach her goal? Explain.
18. Algebra Crystal has 81 buttons arranged equally in 3 rows. Write and solve an equation to find the number of buttons in each row.
19. Sal has 13 stamps arranged in an array. Describe Sal's array.
20. As part of her science project, Shay is making a model of a wind farm. She wants to put 24 turbines in her model. What arrays can Shay make using 24 turbines?

21. Mrs. Fisher has 91 watches on display at her store. She says she can arrange them into rows and columns without any watches left over. Mr. Fisher says she can only make 1 row with all 91 watches. Who is correct? Explain.
22. Higher Order Thinking Mr. Deets is making an array to display 9 pictures. For each pair of different factors, there are two arrays he can make. How many different arrays can Mr. Deets make? Is the number of arrays odd or even? Explain.

## Assessment Practice

23. Which number is not a factor of both 36 and 84 ?

(A) 2
(B) 3
(C) 5
(D) 6
24. Dana has some coins. She wants to display them in an array. Which of the following numbers of coins provides only 2 arrays for Dana to choose from?
(3) 4.0A.2.4.a
(A) 10
(B) 16
(C) 25
(D) 29
