

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Section 1 Factoring Numbers

### ABSORB

These are the **factors** of 16: 1, 2, 4, 8, 16. This is because  $1 \times 16 = 16$ ,  $2 \times 8 = 16$ , and  $4 \times 4 = 16$ .

A **composite number**, such as 16, can possibly be reduced if it appears in a fraction or equation. A **prime number** has only 1 and itself as factors and, therefore, cannot be reduced. The numbers 11, 13, and 17 are a few examples of the many prime numbers. Being able to recognize composite or prime numbers is useful, not only for working with fractions, but also in later applications involving equations.

$$\begin{array}{l} 1 \times 16 = 16 \\ 2 \times 8 = 16 \\ 4 \times 4 = 16 \end{array}$$

### APPLY

List all factors for each number. Write "prime" if the number has only 1 and itself as factors.

1. 4 \_\_\_\_\_
2. 12 \_\_\_\_\_
3. 18 \_\_\_\_\_
4. 31 \_\_\_\_\_
5. 48 \_\_\_\_\_
6. 55 \_\_\_\_\_
7. 67 \_\_\_\_\_
8. 71 \_\_\_\_\_
9. 90 \_\_\_\_\_
10. 105 \_\_\_\_\_
11. 111 \_\_\_\_\_
12. 200 \_\_\_\_\_
13. 301 \_\_\_\_\_
14. 400 \_\_\_\_\_
15. 425 \_\_\_\_\_