

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

## Prime and Composite

**Factors** are the numbers you multiply to get another number.

$$2 \times 3 = 6 \quad 2 \text{ and } 3 \text{ are factors of } 6.$$

$$1 \times 6 = 6 \quad 1 \text{ and } 6 \text{ are also factors of } 6.$$

What are the factors of 6?     1, 2, 3, and 6

**Prime numbers** are the numbers that have only two factors.

$$1 \times 19 = 19 \quad 1 \text{ and } 19 \text{ are the only factors of } 19.$$

Because 19 has only two factors, it is a prime number.

**Composite numbers** are the numbers that have more than two factors.

$$1 \times 10 = 10 \quad 1 \text{ and } 10 \text{ are factors of } 10.$$

$$2 \times 5 = 10 \quad 2 \text{ and } 5 \text{ are also factors of } 10.$$

What are the factors of 10?     1, 2, 5, and 10

Because 10 has more than two factors, it is a composite number.



- a. List all of the factors for the number **4**. \_\_\_\_\_  
Is **4** a prime or composite number? \_\_\_\_\_
- b. List all of the factors for the number **11**. \_\_\_\_\_  
Is **11** a prime or composite number? \_\_\_\_\_
- c. List all of the factors for the number **16**. \_\_\_\_\_  
Is **16** a prime or composite number? \_\_\_\_\_
- d. List all of the factors for the number **23**. \_\_\_\_\_  
Is **23** a prime or composite number? \_\_\_\_\_

# ANSWER KEY

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$$2 \times 3 = 6 \quad 2 \text{ and } 3 \text{ are factors of } 6.$$

$$1 \times 6 = 6 \quad 1 \text{ and } 6 \text{ are also factors of } 6.$$

What are the factors of 6?     1, 2, 3, and 6

**Prime numbers** are the numbers that have only two factors.

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$$1 \times 10 = 10 \quad 1 \text{ and } 10 \text{ are factors of } 10.$$

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What are the factors of 10?     1, 2, 5, and 10

Because 10 has more than two factors, it is a composite number.



- a. List all of the factors for the number **4**.     **1, 2, and 4**  
Is **4** a prime or composite number?     **composite**
- b. List all of the factors for the number **11**.     **1 and 11**  
Is **11** a prime or composite number?     **prime**
- c. List all of the factors for the number **16**.     **1, 2, 4, 8, and 16**  
Is **16** a prime or composite number?     **composite**
- d. List all of the factors for the number **23**.     **1 and 23**  
Is **23** a prime or composite number?     **prime**