Multiplication Properties and Division Rules

You can use the Properties of Multiplication to help you find products.

### Commutative Property
When you change the order of the factors, the product stays the same.

- $4 \times 3 = 12$
- $3 \times 4 = 12$

### Property of One
When you multiply any number by 1, the product is the other factor.

- $1 \times 9 = 9$

### Zero Property
When you multiply any number by 0, the product is 0.

- $0 \times 6 = 0$

### Associative Property
When you group factors in different ways, the product stays the same.

- $(3 \times 2) \times 3$
- $3 \times (2 \times 3)$
- $6 \times 3 = 18$
- $3 \times 6 = 18$

Use properties and rules to solve. If there is no solution, explain why.

1. $1 \times 43 = \_ \_
   
2. $4 \div 0 = \_ \_
   
3. $4 \div 4 = \_ \_
   
4. $\_ \_ \times 12 = 0$
   
5. $\_ \_ \div 5 = 0$
   
6. $9 \times \_ \_ = 9$
   
7. $5 \times 3 = 3 \times \_ \_ $
   
8. $28 \div \_ \_ = 28$
   
9. $4 \times (4 \times 0) = \_ \_ 
   
10. $5 \times (4 \times 3) = \_ \_ \times 3$
   
11. $9 \times (2 \times \_ \_) = 2 \times 9$

Use with text pages 84–87.