

MY Homework**Lesson 5****Multiplication Properties and Division Rules****Homework Helper**Need help? connectED.mcgraw-hill.com

The tables show the properties of multiplication and the division rules that can be used to help solve problems. Identify the property or rule used in the equation $5 \times 1 = 5$.

Multiplication Properties

Commutative Property of Multiplication When multiplying, the order of the factors does not change the product.	$3 \times 4 = 12$ $4 \times 3 = 12$
Identity Property of Multiplication When any number is multiplied by 1, the product is that number.	$7 \times 1 = 7$
Zero Property of Multiplication When any number is multiplied by 0, the product is 0.	$6 \times 0 = 0$

Division Rules

Zeros in Division When you divide 0 by any nonzero number, the quotient is 0. It is not possible to divide a number by 0.	$0 \div 9 = 0$
Ones in Division When you divide any number by 1, the quotient is always the dividend. When you divide any nonzero number by itself, the quotient is always 1.	$8 \div 1 = 8$ $6 \div 6 = 1$

The equation $5 \times 1 = 5$ shows the Identity Property of Multiplication.

Practice

Identify the property or rule shown by each equation.

1. $9 \div 1 = 9$

2. $33 \times 1 = 33$




Problem Solving

Complete each number sentence. Identify the property or rule.

3. $5 \div \underline{\hspace{2cm}} = 5$

4. $9 \times 8 = 8 \times \underline{\hspace{2cm}}$

5. $\underline{\hspace{2cm}} \div 12 = 0$

6. **Mathematical PRACTICE**  **Identify Structure** Dennis has 3 packs of pens with 2 pens in each pack. He has 2 packs of pencils with 3 pencils in each pack. Write two multiplication sentences to show how many pens and pencils he has.
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Vocabulary Check



Write a number sentence for each rule or property.

7. Ones in Division

8. Commutative Property of Multiplication

9. Zeros in Division

10. Zero Property of Multiplication

11. Identity Property of Multiplication

Test Practice

12. The Zero Property of Multiplication tells you that 25×0 is equal to what number?
- (A) 0 (C) 7
- (B) 1 (D) 25