

Homework Practice

Algebra: Properties

Determine whether the two expressions are equivalent. If so, tell what property is applied. If not, explain why.

1. $7 \cdot (6 \cdot t)$ and $(7 \cdot 6) \cdot t$

2. $23 + 15$ and $15 + 23$

3. $18 - (7 - 3)$ and $(18 - 7) - 3$

4. $8 \cdot 1$ and 8

5. $x \cdot 1$ and $1 \cdot x$

6. $10 \div 5$ and $5 \div 10$

Use one or more properties to rewrite each expression as an expression that does not use parentheses.

7. $(b + 3) + 6$

8. $7 + (3 + t)$

9. $9 \cdot (k \cdot 5)$

10. $1 + (h + 2)$

11. **GROCERY** A grocery store sells an imported specialty cheese for \$11 and its own store-brand cheese for \$5. Write two equivalent expressions for buying one of each cheese and an unknown amount of other groceries.

12. **CHECKING ACCOUNT** Mr. Kenrick made three deposits to his account in this order: \$460, \$185, and \$240. Show how to use the Commutative Property to find the sum of the deposits mentally.

13. **PETS** Luzon has 8 fish, 3 cats, and 2 dogs. Write two equivalent expressions using the Associative Property that can be used to find the total number of pets.