

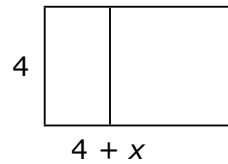
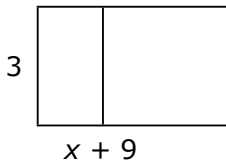
Lesson 22: Properties of Operations and Equivalent Expressions

Homework

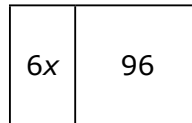
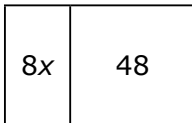
Name _____ Date _____

Directions: Complete each problem.

1. Give two equivalent expressions for the total area of each rectangle.



2. Give the width and length of each rectangle.



3. Write an equivalent expression using the distributive property.

a. $12x + 10$ **b.** $-x + 8$

4. **Directions:** Write an equivalent expression for each of the expressions below using the property given and prove it by substituting 3 for a , 4 for b , and 5 for c .

Expression	Property	Equivalent	Proof
$8b + 7c$	Commutative		
$3a + 6b$	Commutative		
$6a + (2b - a)$	Associative		
$(3a + 4c) + 2b$	Associative		

5. Prove that $3x^2$ is not equivalent to $3x + x$, using 2 for x .