

## Algebra I Worksheet #4 Unit 1 Selected Solutions

Match the property with its name.

\_\_\_ 1. Commutative Law of Addition

A.  $x + 0 = x$

D 2. Associative Law of Addition

B.  $x - y = x + -y$

\_\_\_ 3. Identity Law of Addition

C.  $x + y = y + x$

E 4. Inverse Law of Addition

D.  $(x + y) + z = x + (y + z)$

\_\_\_ 5. Definition of Subtraction

E.  $x + -x = 0$

Name the property that is illustrated in each of the following examples.

Definition of Subtraction

6.  $3x - 5 = 3x + -5$

Commutative Law of Addition

9.  $4 + 7x = 7x + 4$

Find the value of each of the following.

11.  $(57 + 34) + -34 = \underline{57}$   
 $57 + (34 + -34)$   
 $57 + 0$

12.  $(92 + 76) + 8 = \underline{176}$   
 $(76 + 92) + 8$   
 $76 + (92 + 8)$   
 $76 + 100$

Simplify each of the following expressions.

15.  $3x + 4y + 5x = \underline{8x + 4y}$   
 $3x + 5x + 4y$

18.  $(7c + 6d) + (c - 4d) = \underline{8c + 2d}$   
 $(7c + 6d) + (1c + -4d)$   
 $(7c + 1c) + (6d + -4d)$