

Algebra I Class Worksheet #3 Unit 1 _____

Write the full name of each property.

1. $x + 0 = x$
2. $1x = x$
3. $x + -x = 0$
4. If $x \neq 0$, then $x(1/x) = 1$.
5. $x + y = y + x$
6. $xy = yx$
7. $(x + y) + z = x + (y + z)$
8. $(xy)z = x(yz)$
9. $x - y = x + -y$
10. If $y \neq 0$, then $x \div y = x(1/y)$.

Find the value of each of the following. (The basic properties of addition or multiplication can be used to simplify the process.)

11. $78 + (35 - 78) =$ _____

12. $15 \cdot (705 \div 15) =$ _____

13. $(73 + 89) + 27 =$ _____

14. $(25 \cdot 63) \cdot 4 =$ _____

Use the basic properties of addition or multiplication to simplify each of the following expressions.

15. $(4x - 6y) + (8x + 9y) =$ _____

16. $(8x)(5y) =$ _____

17. $(9d + 7) + (5d - 7) =$ _____

18. $24p \div 8 =$ _____

19. $(6x + 5y) + (5y - 6x) =$ _____

20. $(1/4)(8x) =$ _____