

Name: _____

Hour: _____

Distributive Property Worksheet

Use the distributive property to write each expression as an equivalent expression. Then evaluate the expression.

Example: $5(3+4) = (5)3 + (5)4 = 35$

1. $3(4+6)$

2. $5(6+4)$

3. $7(4+9)$

4. $2(4+6)$

5. $8(2+3)$

6. $3(4+8)$

7. $4(5+3)$

8. $6(3+3)$

Use the distributive property to write each expression with variables as an equivalent expression.

Example: $3(x+5) = 3x+15$

$4(2x+6) = 8x+24$

9. $2(x+8)$

10. $3(r+7)$

11. $6(4+y)$

12. $7(2y+6)$

13. $5(3x+6)$

14. $4(7+4x)$

15. $8(p+6)$

16. $9(2x+3)$

Use the distributive property to write each expression with variables as an equivalent expression in simplest form.

Example: $8x + 3(2x+3) - 2x = 8x + 6x + 9 - 2x = 12x + 9$

1. $4(x+3) + 5x + 3 + 2x$

2. $3x + 2(x+3) + 4x + 5$

3. $x + 6 + 7(x+2) + 5 - 2x - x$

4. $6y + 3(2y+2) + 3y + 6$

5. $3r + 2(3r+6) - 6r - 4$

6. $9a + 4 + 3(5+4a) - 8a + a$

Combine the like terms to write an equivalent expression.

7. $3x^2 + 6x + 5x^2 + 4x + x$

8. $3xy + 4xz + 6xy + 4xz - 5xy$

9. $3y^3 + 8y^2 + 5y^2 + 6y^3 - 3y^2$

10. $y + y + y + y + y + y + y$

11. $7q + 3q + v + 3v^2 + 10q^2 + 2v$

12. $x + 3x + 3x^2 + 5x + 8x^3 + 5x^2$

Draw the algebra tiles needed to represent the following algebraic expression

Example: $3(x+2)$

7. $4(x+2)$

8. $2(x+3)$

Use the Greatest Common Factor and the Distributive Property to rewrite the following addition problems.

Example: $25 + 30$ Find the GCF of 25 and 30, which is 5.

$5(5 + 6)$

How many times does the GCF go into 25 and 30?

$36 + 45$

$16 + 20$

$32 + 24$

$40 + 30$

$63 + 42$

$35 + 25$

$75 + 50$

$45 + 60$

$25 + 75$

Distributive Property worksheet

Name:

1: $4(x + 8)$

11: $9(5x + 4)$

2: $6(x - 4)$

12: $8(2x - 6)$

3: $6(x + 6)$

13: $3(7x + 6)$

4: $8(x - 2)$

14: $8(5x - 1)$

5: $3(x + 6)$

15: $2(7x + 4)$

6: $9(x - 6)$

16: $4(5x - 8)$

7: $6(x + 4)$

17: $6(3x + 4)$

8: $4(x - 2)$

18: $6(9x - 6)$

9: $3(x + 3)$

19: $8(5x + 2)$

10: $6(x - 9)$

20: $3(5x - 6)$