The Distributive Property Worksheet

Grade 6 · Common Core 6.EE.A.3

> Apply the properties of operations to generate equivalent expressions.

Practice

Builds the skill step by step.

1. Use the distributive property to write an equivalent expression: 3(x + 4)

2. Use the distributive property: 5(2 + y)

3. Combine like terms: 4a + 7a

4. Which expression is equivalent to 2(m + 6)?

   A. 2m + 6

   B. 2m + 12

   C. m + 12

   D. 8m

5. Combine like terms: 9b − 3b

6. Use the distributive property: 4(n − 3)

7. Combine like terms: y + y + y

8. Which shows 6x + 18 with the greatest common factor factored out?

   A. 3(2x + 18)

   B. 6(x + 3)

   C. 6(x + 18)

   D. 2(3x + 9)

9. Use the distributive property: 7(1 + 2k)

10. Combine like terms: 5x + 2 + 3x

ALBERT

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On Level

Grade-level practice.

1. Factor using the GCF: 12a + 20

2. Simplify: 3(2x + 5) + x

3. Use the distributive property: 6(3y − 2 + x)

4. Which expression is equivalent to 4x + 3y + 2x − y?

   A. 6x + 4y

   B. 6x + 2y

   C. 8xy

   D. 2x + 2y

5. Factor using the GCF: 18m − 27

6. Simplify: 2(a + 4) + 3(a − 1)

7. Write an expression equivalent to y + y + y + y + 5 with only two terms.

8. Use the distributive property: $\frac{1}{2}(8x + 6)$

9. Which expression is NOT equivalent to 24x + 16?

   A. 8(3x + 2)

   B. 4(6x + 16)

   C. 2(12x + 8)

   D. 4(6x + 4)

10. Simplify: 10 + 3(n + 2)

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Challenge

Multi-step and word problems that stretch it.

1. Simplify: $5(2x - 1) - 2(x + 3)$

2. A rectangle has length $x + 5$ and width 3. Write two equivalent expressions for its area.

3. Factor using the GCF: $14a + 21b + 7$

4. Jada simplified $3(x + 4) + 2x$ as $5x + 4$. What is the correct expression?

   A. $5x + 4$

   B. $3x + 6$

   C. $7x + 12$

   D. $5x + 12$

5. Simplify: $0.5(4y + 10) + 1.5y$

6. Write $36 + 48$ as a product of the GCF and a sum, then write $36x + 48$ the same way.

7. Tickets cost $8 each and a fee of $2 is added to each ticket. Write two equivalent expressions for the cost of t tickets.

8. Simplify: $3(2a + b) + 2(a + 4b)$

9. Fill in the missing number so the expressions are equivalent: $6(x + ?) = 6x + 42$

10. Simplify: $x + 2(x + 1) + 3(x + 2)$