LESSON MAKER PRO

Expression Remix

Use operation properties to rewrite expressions.

GRADE 6 · 6.EE.A.3

CCSS.Math.Content.6.EE.A.3 "Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression 3 (2 + x) to produce the equivalent expression 6 + 3x..."

NAME _____ DATE _____

REWRITE IT

To distribute, multiply the factor outside parentheses by each term inside. To factor, divide each term by a common factor and place that factor outside parentheses. Combine like terms only when they have the same variable part.

WORKED EXAMPLE

Write an equivalent expression for $7(3 + n)$.

1. Distribute 7: $7(3 + n) = 7(3) + 7(n)$
2. Multiply: $7(3) + 7(n) = 21 + 7n$

Answer: 21 + 7n

PRACTICE 6 problems

1 Write an equivalent expression: $4(5 + p)$.

ANSWER _____

2 Write an equivalent expression: $9(a + 2)$.

ANSWER _____

3 Factor out the greatest common factor: $16m + 20$.

ANSWER _____

4 Factor out the greatest common factor: $10x + 40y$.

ANSWER _____

5 Combine like terms: $b + b + b + b + b$.

ANSWER _____

6 Combine like terms: $6r + 4 + 9r$.

ANSWER _____

APPLY IT Show your work

1 The school basketball team prepares 4 fan kits. Each kit has 6 wristbands and w water bottles. Write an equivalent expression for the total number of items in all the kits.

WORK SPACE

ANSWER _____

2 The media club orders x posters for $4 each and x sticker packs for $6 each. Write a simplified expression for the total cost.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Simplify to an equivalent expression: 12(2x + 5) + 8x.

WORK SPACE AND ANSWER

ANSWER KEY

Expression Remix

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Write an equivalent expression: 4(5 + p).	**20 + 4p**
2	Write an equivalent expression: 9(a + 2).	**9a + 18**
3	Factor out the greatest common factor: 16m + 20.	**4(4m + 5)**
4	Factor out the greatest common factor: 10x + 40y.	**10(x + 4y)**
5	Combine like terms: b + b + b + b + b.	**5b**
6	Combine like terms: 6r + 4 + 9r.	**15r + 4**

PART 2 · APPLY IT

1. **24 + 4w** Start with 4(6 + w). Distribute 4 to get 24 + 4w.
2. **10x** The cost expression is 4x + 6x. Combine the like terms to get 10x.

CHALLENGE

32x + 60

Accept equivalent expressions with terms or factors in a different order. For factoring items, accept only forms that factor out the greatest common factor.