LESSON MAKER PRO

Expression Remix

Distribute, combine, and rewrite.

GRADE 7 · MA.7.AR.1

MA.7.AR.1 "Rewrite algebraic expressions in equivalent forms."

NAME _____ DATE _____

BUILD EQUIVALENT FORMS

Use the distributive property to multiply a factor by every term inside parentheses. Then combine like terms, which have the same variable part, by adding or subtracting their coefficients.

WORKED EXAMPLE

Rewrite 7(2x - 3) + 5x in simplest form.

1. Distribute 7: 14x - 21 + 5x
2. Combine the x-terms: 19x - 21

Answer: 19x - 21

PRACTICE 6 problems

1 Rewrite 4x + 6x in simplest form.

ANSWER _____

2 Rewrite 8(x + 4) in simplest form.

ANSWER _____

3 Rewrite 10x - 4x + 11 in simplest form.

ANSWER _____

4 Rewrite 6(4x - 9) + 8x in simplest form.

ANSWER _____

5 Rewrite 12x + 8 - 4x + 13 in simplest form.

ANSWER _____

6 Rewrite 9(x - 6) + 4(x + 8) in simplest form.

ANSWER _____

APPLY IT Show your work

1 A music club makes 8 playlist sets. Each set has x student-picked songs, 6 teacher-picked songs, and 4 bonus songs. Write an equivalent expression for the total number of songs in all the sets.

WORK SPACE

ANSWER _____

2 In a tournament, a gaming team plays 9 rounds. In each round, the team earns x points for challenges and 8 points for teamwork. After the tournament, the team loses 4 points for a rule penalty. Write an equivalent expression for the team's final score.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Rewrite 4(6x - 8) - 9(x + 4) + 11x in simplest form.

WORK SPACE AND ANSWER

ANSWER KEY

Expression Remix

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Rewrite 4x + 6x in simplest form.	**10x**
2	Rewrite 8(x + 4) in simplest form.	**8x + 32**
3	Rewrite 10x - 4x + 11 in simplest form.	**6x + 11**
4	Rewrite 6(4x - 9) + 8x in simplest form.	**32x - 54**
5	Rewrite 12x + 8 - 4x + 13 in simplest form.	**8x + 21**
6	Rewrite 9(x - 6) + 4(x + 8) in simplest form.	**13x - 22**

PART 2 · APPLY IT

1. **8x + 80** One set has x + 6 + 4, or x + 10, songs. Multiply by 8 and distribute: 8(x + 10) = 8x + 80.
2. **9x + 68** The score before the penalty is 9(x + 8). Distribute and subtract the penalty: 9x + 72 - 4 = 9x + 68.

CHALLENGE

26x - 68

Accept algebraically equivalent expressions with terms in a different order. For the story problems, accept correct factored forms as well as the expanded answers.