LESSON MAKER PRO

Expression Remix

Use properties to rewrite expressions in simpler forms.

GRADE 7 · 7.EE.A.1

CCSS.Math.Content.7.EE.A.1 "Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients."

NAME _____ DATE _____

USE PROPERTIES

Use the distributive property to multiply every term inside parentheses by the number outside. Combine only like terms, and factor by taking out a greatest common factor.

WORKED EXAMPLE

Simplify: (7/8)(16y + 24)

1. Distribute: (7/8)(16y) + (7/8)(24)
2. Multiply the coefficients: 14y + 21

Answer: 14y + 21

PRACTICE 6 problems

1 Simplify: 3x + 5 - 2x + 9

ANSWER _____

2 Expand: -4(3a - 5)

ANSWER _____

3 Factor: 6m + 15

ANSWER _____

4 Simplify: (2/3)n - (1/4)n + 6

ANSWER _____

5 Expand: (3/5)(10p - 25)

ANSWER _____

6 Simplify: 4(2q - 3) + 5q

ANSWER _____

APPLY IT Show your work

1 A bracelet club makes 5 display kits. Each kit contains 4b + 3 beads, where b represents the number of bead strands in one design. The club gives away 2b beads for prizes. Write and simplify an expression for the number of beads left.

WORK SPACE

ANSWER _____

2 At a gaming tournament, a player completes p puzzle tiles in each of 4 rounds. In each round, the player earns (3/4)p + 2 points. After the tournament, the player loses 5 points. Write and simplify an expression for the player's final score.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Simplify: (5/6)(6r - 12) - (1/3)(9r + 3)

WORK SPACE AND ANSWER

ANSWER KEY

Expression Remix

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Simplify: 3x + 5 - 2x + 9	**x + 14**
2	Expand: -4(3a - 5)	**-12a + 20**
3	Factor: 6m + 15	**3(2m + 5)**
4	Simplify: (2/3)n - (1/4)n + 6	**(5/12)n + 6**
5	Expand: (3/5)(10p - 25)	**6p - 15**
6	Simplify: 4(2q - 3) + 5q	**13q - 12**

PART 2 · APPLY IT

1. **18b + 15** Write 5(4b + 3) - 2b. Distribute 5, then combine 20b and -2b.
2. **3p + 3** Write 4((3/4)p + 2) - 5. Distribute 4 and combine the constant terms.

CHALLENGE

2r - 11

Accept equivalent expressions with terms in a different order. For the factoring item, accept equivalent forms that factor out the greatest common factor of 3.