

Lesson 6-6 • Group 2

Reinforce Understanding

6.6 Small Group • Group 2

I can show that two expressions are equivalent by simplifying and combining like terms, explain why the method works, and use it on a problem I have not seen before.

Worked model

Are $7c + 9 + 6c$ and $13c + 9$ equivalent? Simplify to decide.

1. Find the like terms. $7c$ and $6c$ both have the letter c .
2. Combine the like terms. $7c + 6c = 13c$
3. Keep the constant. The 9 has no letter, so it stays alone.
4. Compare. $13c + 9$ matches the second expression.

Answer: Yes. Both expressions simplify to $13c + 9$, so they are equivalent.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. Match each expression with its simplified form.

Write the name of the correct group on each line.

Groups: Correctly Matched

- _____ $8y + 2y \rightarrow 10y$
- _____ $3(a + 6) \rightarrow 3a + 18$
- _____ $5n + 4 + 2n \rightarrow 7n + 4$
- _____ $9p - 3p \rightarrow 6p$
- _____ $4(2x - 1) \rightarrow 8x - 4$
- _____ $6t + t \rightarrow 7t$

2. Match each expression to its simplified equivalent.

Write the letter of the matching item on each line.

1. _____ $6x + 2x$
2. _____ $3(n + 5)$
3. _____ $4a + 7 + a$
4. _____ $2(3y - 4)$
5. _____ $10m - 4m + 1$
6. _____ $5(x + 2)$

- A $8x$
- B $3n + 15$
- C $5a + 7$
- D $6y - 8$
- E $6m + 1$
- F $5x + 10$