

Lesson 6-15 • Group 2

Reinforce Understanding

6.15 Small Group • Group 2

I can simplify algebraic expressions by combining like terms, explain why the method works, and use it on a problem I have not seen before.

Worked model

The rooms need microphones and stands: $(4 + 2 + 6)$ microphones and $(3 + 5 + 1)$ stands.

1. Microphones are like items, so I add: $4 + 2 + 6 = 12$ microphones.
2. Stands are like items, so I add: $3 + 5 + 1 = 9$ stands.
3. In algebra this is the same as $4m + 2m + 6m + 3s + 5s + 1s = 12m + 9s$.

Practice

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

1. Simplify each expression by combining like terms.

Complete the table. Show how you found each value.

Expression	Like Terms Combined	Simplified
$3a + 5a + 2$	$3a + 5a = 8a$	
$6x + 4 + 2x + 7$		
$10m - 3m + 5$		
$4y + 3 + y + 9$		

Show your work

2. Match each expression to its simplified form.

Write the letter of the matching item on each line.

1. _____ $8x + 3x + 1$
2. _____ $5a - 2a + 7$
3. _____ $4n + n + 6$
4. _____ $12y - 5y$
5. _____ $3m + 8 + 4m + 2$
6. _____ $9p + 1 - 3p$

- A $11x + 1$
- B $3a + 7$
- C $5n + 6$
- D $7y$
- E $7m + 10$
- F $6p + 1$