

Lesson 6-15 • Group 1

Reinforce Understanding

6.15 Small Group • Group 1

With my small group, I can simplify algebraic expressions by combining like terms — one step at a time, with support.

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. Sort each pair of terms by whether they are like terms (can be combined) or not.

Write the name of the correct group on each line.

Groups: Like Terms Not Like Terms

- _____ $4m$ and $7m$
- _____ $3x$ and $3y$
- _____ $5n$ and n
- _____ 8 and $2p$
- _____ $6a$ and $9a$
- _____ $2x^2$ and $2x$

2. 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
