UNIT 6 · STANDARD 6.EE.3

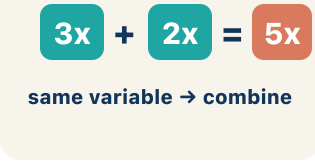
Simplify Algebraic Expressions

Lesson 6-7

Name: Type your name **Date:** Today's date **Class:** Class period

Key Vocabulary Level 2 Standard

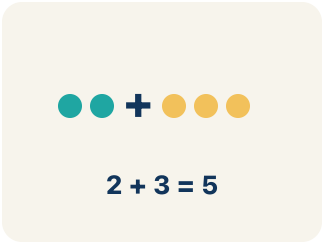
Picture first, then the word, then a plain-language meaning. Say each word out loud.



5x and 3x are like terms (both x); 5x and 5y are NOT (different variables); 2x and 2x² are NOT (different powers)

Like Terms

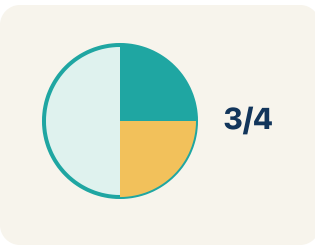
Write the definition:



8m + 3m = 11m — add the coefficients (8 + 3 = 11) and keep the variable (m)

Combine

Write the definition:



2a + 5a + 3 simplifies to 7a + 3 — the two a-terms combine, the constant stays

Simplify

Write the definition:

In 9x, the coefficient is 9 — it tells you 'nine groups of x'; if x = 2, then 9x = 18

Coefficient

Write the definition:

3 separate terms

In 3x + 5 − 2x, the terms are 3x, 5, and 2x.

Term

Write the definition:

3(x + 4) = 3·x + 3·4 = 3x + 12.

Distributive property

Write the definition:

Guided Notes Level 2 Standard

🎯 **WHAT WE'RE LEARNING TODAY**

I can simplify algebraic expressions by combining like terms.

✏️ **Fill in each blank as we go. Use the Word Bank to help you.**

📚 **WORD BANK — FILL EACH BLANK WITH THE BEST WORD**

Like Terms | Combine | Simplify | Coefficient | Term | Distributive property

🤟 *Tap any word to see what it means and a picture.*

1. Terms with the same variable part, like 3y and 8y, are _____.

2. To add or subtract like terms into a single term is to _____ them.

3. To write an expression in its shortest equal form is to _____ it.

4. The number multiplied by a variable is the _____.

5. A number or variable separated by + or − signs is a _____.

6. Multiplying each part of a sum by a number uses the _____ property.

🧱 Watch & Try — Worked Examples

See the notes in action: watch one worked all the way through, then try the next with the same steps.

👀 I do — watch

Follow each step as your teacher solves it.

Problem: Simplify $7x + 3x$.

A. $10x$

B. $10x^2$

C. $21x$

D. $73x$

Step 1 $7x + 3x = 10x$.

Step 2 Add the coefficients: $7 + 3 = 10$.

✅ **Answer:** A. $10x$

🧩 Try — put the steps in order

Drag the cards (or use the ▲▼ buttons) to put the solution steps in the right order, then press **Check**.

Add the coefficients: $7 + 3 = 10$.

$7x + 3x = 10x$.

🤝 We do — together

Solve this one with your class using the same steps.

Problem: Simplify $9n + 4 + 2n$.

A. $11n + 4$

B. $15n$

C. $11n^2 + 4$

D. $92n + 4$

Step 1 _____

Step 2 _____

Answer: _____

✏️ **You do — your turn**

Now try one on your own. Show every step.

Problem: Which pair are like terms?

A. 6x and 2x

B. 6x and 6y

C. 6x and 6

D. 6x and $2x^2$

Show your work:

Try It

Solve on your own. Check the answer key when you are done.

1. Clean up this channel: 7y − 3y.

A. 4y

B. 10y

C. 4

D. 21y

Show your work:

2. Simplify the mix: 6m + 4 + 3m.

A. 9m + 4

B. 13m

C. 9m + 4m

D. 10m

Show your work:

Stretch Your Thinking

Level 2 enrichment

Challenge task — explain your reasoning in full sentences.

Three students simplified 4x + 3 + 2x + 5 + x differently. Student A got 7x + 8. Student B got 7x² + 8. Student C got 6x + 9. Who is correct? Explain the mistakes the other two students made.

Sentence starter: Student ____ is correct because 4x + 2x + x = ____x and 3 + 5 = ____. Student ____'s error was ____. Student ____'s error was ____.

Show your work:

Reflect — Exit Ticket

Simplify 6x + 3 + 2x + 5.

A. 8x + 8

B. 8x² + 8

C. 62x + 35

D. 16x

Your answer: