

CYU 2.1 Simplifying Algebraic Expressions

Use when you get it right all by yourself
S Use when you did it all by yourself, but made a silly mistake
H Use when you could do it alone with a little help from teacher or peer
G Use when you completed the problem in a group
X Use when a question was attempted but wrong (get help)
N Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Coefficient	1		
Like/Unlike Terms	2		
Simplify/Combining Like Terms (CLT)	3, 6	3, 6	3, 6
Distributive property	4	4	
Writing algebraic expressions		5	
Evaluating expression			7

Show all work to earn full credit or give a written explanation if you feel no work is required.

- Identify the coefficient of the term: "-y" -1
- Indicate whether the terms are like or unlike: $2z$ & $3z^2$ and $8wz$ & $\frac{1}{7}zw$.
unlike like
- Simplify each expression by combining and like terms.
 - $8x^3 + x^3 - 11x^3$ -2x³
 - $0.4y - 6.7 + y - 0.3 - 2.6y$ -1.2y - 7
 - $7y + 8y$ 15y
- Simplify each expression. First use the distributive property to remove any parentheses.
 - $5(y - 4)$ 5y - 20
 - $-4(y + 6)$ -4y - 24
 - $-(y + 5z - 7)$ -y - 5z + 7
 - $4(2x - 3) - 2(x + 1)$ 6x - 14
- Write each of the following as an algebraic expression. Then simplify, if possible.
 - Add $6x + 7$ to $4x - 10$ 10x - 3
 - Subtract $4x - 7$ from $12 + x$ 19 - 3x
 - Subtract $m - 3$ from $2m - 6$ m - 3
 - Subtract $6x - 1$ from $3x + 4$ -3x + 5

6. Simplify each expression.

a. $2k - k - 6$ $k - 6$

b. $-9x + 4x + 18 - 10x$ $-15x + 18$

c. $-4(3y - 4) + 12y$ 16

d. $3(2x - 5) - 5(x - 4)$ $x + 5$

e. $2(6x - 1) - (x - 7)$ $11x + 5$

f. $8y - 2 - 3(y + 4)$ $5y - 14$

g. $5k - (3k - 10)$ $2k + 10$

h. $2.8w - 0.9 - 0.5 - 2.8w$ -1.4

i. $\frac{1}{5}(9y + 2) + \frac{1}{10}(2y - 1)$ $2y + \frac{3}{10}$

j. $8 + 4(3x - 4)$ $-8 + 12x$

k. $0.2(k + 8) - 0.1k$ $0.1k + 1.6$

l. $14 - 11(5m + 3n)$ $14 - 55m - 33n$

m. $7(2x + 5) - 4(x + 2) - 20x$ $-10x + 27$

n. $\frac{1}{3}(9x - 6) - (x - 2)$ $2x$

o. $5b^2c^3 + 8b^3c^2 - 7b^3c^2$ $5b^2c^3 + b^3c^2$

p. $4m^4p^2 + m^4p^2 - 5m^2p^4$ $5m^4p^2 - 5m^2p^4$

q. $3x - (2x^2 - 6x) + 7x^2$ $5x^2 + 9x$

r. $9y^2 - (6xy^2 - 5y^2) - 8xy^2$ $14y^2 - 14xy^2$

s. $-(2x^2y + 3z) + 3z - 5x^2y$ $-7x^2y$

t. $-(7c^3d - 8c) - 5c - 4c^3d$ $-11c^3d + 8c$

7. Evaluate the following expressions for the given values.

a. If $g = 0$ and $h = -4$, find $gh - h^2$.

-16

b. If $x = -3$, find $x^3 - x^2 + 4$.

-32

c. If $x = -2$, find $x^3 - x^2 - x$.

-10

CYU Reflection: How far can you go: basic, intermediate, or advanced?

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself.

