

Lesson 3-7 Simplifying Algebraic Expressions

SWBAT: Simplify algebraic expressions by combining like terms.

Term:

- _____.
- Terms are separated by either the _____ signs.

Ex: 7, m, 5a, 48ab

Circle each term in the following expressions:

① $7x^2 + 3y$ ② $5 - 24ab$

Coefficient:

- What we call the _____ the variable.

Ex: In the term $3x$, the number 3 is called the coefficient and x is called the variable

Identify the coefficients in each expression:

① $a - 3b$ ② $3x + 12m$ ③ $11j - v$

Constant:

- What we call the _____ a variable.

Ex: In the algebraic expression $4x + 8$, the 8 is called the constant

a. $3x - 2m + 1$ b. $9j + b - 128$ c. $139h - 2x$

Like Terms:

- Any term that has the exact same _____ as another term.

Ex: Find the like terms in each expression

a. $3x + 4x + 14$ b. $40y + 12 - 8$ c. $3m + 2x - 8y + 4 + 5y$

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SWBAT: Simplify algebraic expressions by combining like terms.

Combining like terms:

You can simplify expressions by combining the like terms.

① $6x + 7 + 3x$
 $9x + 7$

First, identify the like terms (6x and 3x)
Now look at the signs in front of the terms to tell
if you should add or subtract the terms.

Remember to look at the sign in _____ each term to decide if you will
add them or subtract them!! This will help you find the coefficient when
combining the like terms.

Ex: $2c + 8 + 4c - 3$ The sign in front of the 3 is subtraction
 $2c + 8 + 4c - 3$ so when I combine I will do $8 - 3$.
 $6c + 5$

Simplify the following expressions:

a. $2b + 3b + 4b$

b. $3x + 9x - 2$

c. $8 + 4x - 8$

d. $7 - 3w + 3 + 5w$

e. $5x + 3w - 4 - 2x + 6x + 4w + 10$

Challenge: Simplify

$3x^2 + 2x(5x + 3 + 7x^2)$