

Combining Like Terms

Vocabulary

Numerical Coefficient

Any number in front of a _____ in a term. If there is no number in front of the _____, the numerical coefficient is understood to be ____.

Examples

4a 10xy 1b -6x³

Constant

A number on its own that does not _____.

Examples

1 17 -5

$$-14 - 9m + 35m + 6$$

$$19 - 3x + 7x - 1$$

What are the coefficients in the expression above:

What are the constants in the expression above?

Vocabulary

Like Terms

Terms with the exact same _____ or variables raised to the same _____.

Examples

4x and -10x 15xy and 17xy

-2x²y and 7x²y -9xy³ and 13xy³

Determine whether the terms are **LIKE** or **UNLIKE** terms.

Drag the correct word over the terms.

-4x and -10x	13xy and 5y	5x ² and 9x
9x ² y and 4x ² y	3xy ² and 7x ² y	17ab and -21ab

LIKE

UNLIKE

Notes - Combining Like Terms

Simplifying Expressions by Combining Like Terms

You can combine like terms by **adding** their numerical coefficients.

Examples:

1. $-5x + 9x - 12x$ 2. $14x + 9 - 6$

$$-9 + 10x - 12$$

$$6x - 3 + 4x$$

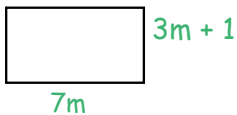
Are these two expressions the same? Why or why not?

$$7y^2 + 4y$$

$$11y^2$$

Are these two expressions the same? Why or why not?

What expression represents the perimeter of this rectangle? Simplify it!



Guided Practice

Simplify each expression.

1. $-6x + 7x + 13x$

2. $5x^2 - 9 - 7x^2 + 16$

3. $3xy + 7x - 8xy + 9x$

4. $8a^2 + 9a - 9a^2 - 17a$

Work with your partner to complete the following problems.

The expressions on the right have had their like terms combined. Match each expression on the left with an expression on the right.



$8x - 3x$

a. $5x^2y + 2xy^2$

$3x + 9y - 5x$

b. $5x$

$-4x - 5x - 7xy$

c. $3x + 9y$

$6xy + 4yz - 3xy + yz$

d. $3xy + 5yz$

$7x^2y - 2x^2y + 5xy^2 - 3xy^2$

e. $-2x + 9y$

$-4x - 7xy + 8y$

f. $-4x - 7xy + 8y$

$8x + 9y - 5x$

g. $-9x - 7xy$

Attachments

Wksht 55.doc

combine-like-terms-worksheet.pdf