

LIKE TERMS

Like-terms contain the same pronumerals with the same powers:

examples: $3x$ and $7x$

$2ab$ and $-9ab$

x^2 and $5x^2$

3 and 7 are like terms

$2x^4$ and $-5x^4$

(the pronumerals do not need to be in the same order, so $4xy$ and $8yx$ are also like-terms)

LIKE-TERMS

Like-terms can be combined when they are added or subtracted to simplify an expression:

Examples: Simplify the following expressions

$$2x + 5x = 7x$$

$$5x + 3x - 2x = 6x$$

$$3xy + 5xy = 8xy$$

$$5x + x^2 + 3x^2 - 6x = 4x^2 - x$$

$$2 + 3x + 2x^2 - 5x + 7x^2 - 1 = 9x^2 - 2x + 1$$