Algebra: Monomials

Adding & Subtracting

Monomials

What is a monomial?

$$ax^n$$

a = coefficient

x = variable

n = exponent

Monomials

A monomial is the product of a number and a power of variable x (or y, a, b, c etc)

Monomials

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ex. $-5x^6$

What is the coefficient?

Variable?

Exponent?

Monomials

The degree of the monomial corresponds to the variables exponent.

Ex. What is the degree of $7a^4$?

Monomials

The degree of a monomial with more than one variable is equal to the sum of the exponents.

ex. What is the degree of $7x^5y^2$?

Adding and Subtracting Monomials

When two monomials have the *same* variables **and** the *same* exponents - they are “like terms” or similar.

Only when they are similar, can we add or subtract the monomials.

ex. Are $6x^3$ and $-2x^3$ similar?

Adding and Subtracting Monomials

Recap: Only if they are like terms can monomials be added or subtracted.

ex. Can we add $-5y^2$ and $6y^2$?

Yes!

$-5y^2 + 6y^2 = 1y^2$ or just y^2

Adding and Subtracting Monomials

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ex.

$6a + 8a - 3a =$

ex.

$-7y^3 + 8y^3 - 10y^3 =$