# 1.1 Operations with Polynomials

Calendar math September

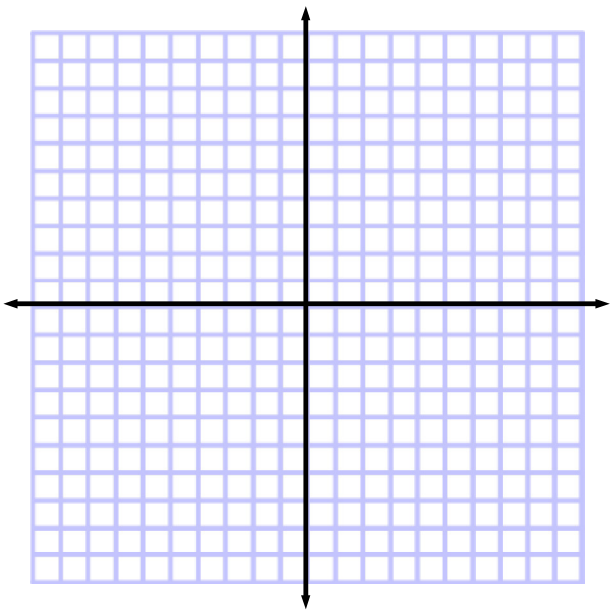
Transformations

Parent Functions: the basic function that is used to create more complex functions

Linear $f(x) = x$ $y = x$

Quadratic $f(x) = x^2$ $y = x^2$

Absolute Value $f(x) = |x|$ $y = |x|$



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Standard Form: $ax^n + bx + c$

Coefficient: The number IN FRONT of the variable

leading coefficient: ALWAYS "a"

constant: ALWAYS the loner "c"

degree: the highest exponent

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1. $5-5b^2$

SF: (standard form) $-5b^2+5$ →

Degree: 2

LC:(leading coefficient) $-5$

2. SF: $7r^2+2r+3$

D: 2

LC: 7

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## Adding/Subtracting Like Terms

Rule: Add Coefficients with LIKE exponents

4. $(7x + 8x^4) + (7x + 2x^4)$

$10x^4 + 14x$

7. $(6x^2 + 8x^4 + 3x^3) - (7x^4 + 4x^3 - 8x^2)$

$6x^2 + 8x^4 + 3x^3 - 7x^4 - 4x^3 + 8x^2$

$x^4 - x^3 + 14x^2$

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Subtracting polynomials is slightly different...

7. $(6x^2 + 8x^4 + 3x^3) - (7x^4 + 4x^3 - 8x^2)$

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Solve for the ?

12. Find the difference of $(7x^2 + 3x + 4) - (?) = (x^2 + x + 3)$

$7x^2 + 3x + 4$

$-1x^2 - 1x - 3$

$6x^2 + 2x + 1$

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