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How do you find  
the **degree** of a  
polynomial?

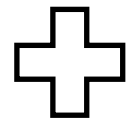
What is the  
**leading  
coefficient**?

What are  
Polynomials?

(Monomials,  
Binomials, &  
Trinomials)



Subtracting  
Polynomials



Adding  
Polynomials

What is a polynomial?

Monomial	Binomial	Trinomial	Polynomial	Non-Examples

Identifying the **degree of a polynomial** & the **leading coefficient**

	Degree	Leading Coefficient
$9x$		
$2x^2 + 2x$		
$2x^3 + x^2 - 5x + 12$		
$15x - x^3 + 3$		

Example 1:

$$(4x^3 + 2x^2 + 6x - 4) + (x^3 - 5x^2 + x)$$

Example 2:

$$(-2x^2 + 3x - x^3) + (3x^2 + x^3 - 12)$$

Example 3:

$$(5y^2 + 2y - 4) - (-y^2 + 4y - 3)$$

Example 4:

$$(2c^3 + 5c^2 - 8) - (3c^2 - 4c + 1)$$

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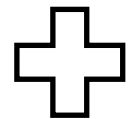
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## What is a polynomial?

Monomial	Binomial	Trinomial	Polynomial	Non-Examples
$6$ $x$ $7m$ $4h^2$ $-17e^{10}$ $\frac{1}{4}k^2$	<p>Two terms!</p> $x + 6$ $m^2 + m$	<p>Three terms!</p> $x^2 + x + 6$ $b^3 + b - 1$	<p>More than 3 terms!</p> $x^3 + 3x^2 - 5x + 6$	$\frac{6}{x}$ $x^{-2}$ $6^x$

## Identifying the degree of a polynomial & the leading coefficient

	Degree	Leading Coefficient
$9x$	1	9
$2x^2 + 2x$	2	2
$2x^3 + x^2 - 5x + 12$	3	2
$15x - x^3 + 3$ $-x^3 + 15x + 3$ **Rewrite so the exponents are written in descending order.	3	-1

### Example 1:

$$(4x^3 + 2x^2 + 6x - 4) + (x^3 - 5x^2 + x)$$

$$\begin{array}{r}
 4x^3 + 2x^2 + 6x - 4 \\
 (+) \quad x^3 - 5x^2 + x \\
 \hline
 5x^3 - 3x^2 + 7x - 4
 \end{array}$$

### Example 2:

$$(-2x^2 + 3x - x^3) + (3x^2 + x^3 - 12)$$

\*\*Rewrite so the exponents are written in descending order.

$$\begin{array}{r}
 -x^3 - 2x^2 + 3x \\
 (+) \quad x^3 + 3x^2 - 12 \\
 \hline
 x^2 + 3x - 12
 \end{array}$$

### Example 3:

$$(5y^2 + 2y - 4) - (-y^2 + 4y - 3)$$

$$\begin{array}{r}
 5y^2 + 2y - 4 \\
 (-) \quad -y^2 + 4y - 3 \\
 \hline
 6y^2 - 2y - 1
 \end{array}$$

### Example 4:

$$(2c^3 + 5c^2 - 8) - (3c^2 - 4c + 1)$$

$$\begin{array}{r}
 2c^3 + 5c^2 - 8 \\
 (-) \quad \quad 3c^2 - 4c + 1 \\
 \hline
 2c^3 + 2c^2 + 4c - 9
 \end{array}$$

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Step 1: Print pages 1 & 2 front to back (my printer has a setting “front to back along the short side”).

Step 2: Cut off the top region (above the dotted line).

Step 3: Place the sheet so that the examples are face up. Fold over the left and right sides so that they meet at the solid vertical line in the center of the sheet.

Step 4: Cut along the dotted lines to create the individual flaps.

The final product should look like this:

