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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6 x $7m$ $4h^2$ $-17e^{10}$ $\frac{1}{4}k^2$	Two terms! $x+6$ $m^2 + m$	Three terms! $x^2 + x + 6$ $b^3 + b - 1$	More than 3 terms! $x^3 + 3x^2 - 5x + 6$	$\frac{6}{x}$ 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
$15x - x^3 + 3$ $-x^3 + 15x + 3$	3	-1

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

Example 1:

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

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

Example 2:

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

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

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

Example 3:

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

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

Example 4:

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

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

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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: