Algebra 1 8.1

Write polynomials in standard form

Add and subtract polynomials

monomial

polynomial

binomial

trinomial

degree (of a monomial)

degree (of a polynomial)

activ: algebra tiles

whiteboards

5 in a row

2LS + 4MS + 13SS + 2R + 5TB + 6SB

(ck)

1LS + 4MS + 3SS + 2R + 2TB + 1SB

1LS + 5SB + 3TB + 10SS

(D) 2LS + 4MS + 2R + 2TB + 2SS

1LS + 6TB + 7SB + 1MS + 6SS

3LS + 5MS + 2R + 8TB + 7S + 8SS

(H) 2LS + 3MS + 2R + 1TB + 3SB

1MS + 2LS + 5SB + 4TB

2LS + 4MS + 2R + 2LS + 8SB + 5TB

(J) 2LS + 2R + 3TB + 3SB + 5SS

4MS + 1R + 3SB + 3TB + 8SS

2LS + 4MS + 3R + 6TB + 6SB + 13SS

Red = neg

Color = pos

$-2MS - R + 2SB + SS + 2TB$

$-2MS + TB + 8SS + 4S$

$+LS - 2MS + 8B + -4TB + -4SS$

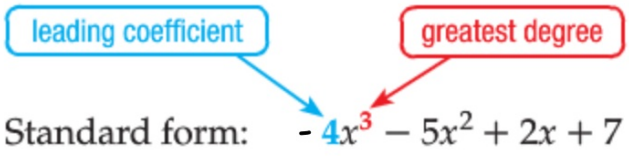
-6 $d=0$

Monomial	Binomial	Trinomial
$5x^1$	$2x^2 + 7$	$1x^3 - 10x + 1$
$d=1$	$d=2$	$d=3$
	$LC=2$	$LC=1$

$x^3y^2 + x^4 + x^3$

Degree	Name
0	constant
1	linear
2	quadratic
3	cubic

Polynomials are named based on their degree (exponents).and number of terms included


leading coefficient
greatest degree
Standard form: $-4x^3 - 5x^2 + 2x + 7$

$d = 3$

$LC = -4$

Activ: 5 in a row (if time)

$2x^2 + 3x + 1$

GuidedPractice

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

3B. $(y^4 - 3y + 7) + (2y^3 + 2y - 2y^4 - 11)$

$-1y^4 + 2y^3 - 1y - 4$

$-y^4 + 2y^3 - y - 4$

Distributive property

Example 4 Subtract Polynomials

Find each difference.

a. $(3 - 2x + 2x^2) + (4x - 5 + 3x^2)$

Danger!

$+3 + -2x + 2x^2 \quad -4x + 5 \quad -3x^2$

$-1x^2$

$-x^2 + 6x + 8$

b. $(7p + 4p^3 - 8) + -1(3p^2 + 2 - 9p)$

$-3p^2 + -2 + 9p$

$4p^3 - 3p^2 + 16p + -10$

GuidedPractice

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

4B. $(8y - 10 + 5y^2) + (7 - y^3 + 12y)$

$-7 + y^3 + 12y$

$-4y - 17 + 5y^2 + y^3$