Algebra 1 8.1

Write polynomials in standard form

Add and subtract polynomials

1 monomial
polynomial
2 binomial
3 trinomial

$\frac{x}{4} = \frac{1}{4}x$ $\frac{1}{4x}$

$a^2b^3c^1$ $d = 6$

degree (of a monomial)

degree (of a polynomial)

like terms

activ: algebra tiles

5 in a row (if time)

b. $(3y + y^3 - 5) + (4y^2 - 4y + 2y^3 + 8)$

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

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

Guided Practice

3A. $(5x^2 - 3x + 4) + (6x - 3x^2 - 2)$ $2x^2 + 3x + 1$

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

Distributive property

Example 4 Subtract Polynomials

Find each difference.

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

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

$-x^2 - 6x + 8$

Whiteboards

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

$7p + 4p^3 - 8 - 3p^2 - 2 + 9p$

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

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

Guided Practice

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

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

$6x^3 + 4x^2 + 6x + 2$

5 in a row