

January 30, 2018

Warm Up

At your table, come up with as many differences between the two boxes as you can

8

$$\sqrt{20}x^2 - 9x + 3$$

$$\frac{1}{2}x^5 - x^3 - 9x$$

$$x^3 + 4x^2 - 7x + 0.5$$

$$97x^{41} - 24x^2$$

$$7x^2 - 4x + \pi$$

$$4x^2y^2 + 6xy^2 + 8x^2y - 10$$

$$3^x + 2x^2 - x$$

$$\frac{2}{x^5} - x^3 - 9x$$

$$x^4 + 9\sqrt{x}$$

$$x^{\frac{3}{4}} - 15x^3$$

$$2x^3 + 9x^{-2} - 11$$

Take 5 minutes to discuss again, using the "mathy" words below

These are examples of polynomials.	These are NOT polynomials
8	$3^x + 2x^2 - x$
$\sqrt{20}x^2 - 9x + 3$	$\frac{2}{x^5} - x^3 - 9x$
$\frac{1}{2}x^5 - x^3 - 9x$	$x^4 + 9\sqrt{x}$
$x^3 + 4x^2 - 7x + 0.5$	$x^{\frac{3}{4}} - 15x^3$
$97x^{41} - 24x^2$	$2x^3 + 9x^{-2} - 11$
$7x^2 - 4x + \pi$	
$4x^2y^2 + 6xy^2 + 8x^2y - 10$	

WORD BANK

- variable •exponent •term •numerator •denominator
- radical •Integer •whole number •negative •positive
- expression •coefficient

Definitions of some words we will be using this unit

- Constant
- Monomial
- Coefficient
- Degree of a variable in a monomial
- Degree of a monomial
- Polynomial

A large empty rectangular box with a black border, likely intended for a definition or example related to the word 'Polynomial'.

Definitions cont.

- Binomial
- Trinomial
- Degree of a polynomial
- Standard form of a polynomial

Addition and subtraction of polynomials:

Simply add or subtract like terms. Ex:

$$(12x^3 - 5x^2 - 70x + 1) + (-17x^3 + 56x)$$

Multiplying or dividing be comes a little trickier. Today we'll just look at multiplication and we'll talk about division tomorrow

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

Example 2:

$$(3x+2y)^3$$

Now you try:

Multiply each of the following polynomials

$$(2x + 6)(7x - 8)$$

$$(x^2 + 1)(x - 7)$$

$$(x^3 + 3x + 1)(x - 6)$$

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

