

Warm Up

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

$$x^2 - 6x + 3x - 18$$

$$x^2 - 3x - 18$$

2) $(x - 5)(x - 8)$

$$x^2 - 13x + 40$$

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

$$15x^2 + 18x - 10x - 12$$

$$15x^2 + 8x - 12$$

$$15) 2x^{\frac{1}{3}} \cdot 2x^{\frac{3}{3}} = 4x^{\frac{4}{3}}$$

$$16) 3n^{\frac{5}{3} \cdot \frac{2}{2}} \cdot n^{\frac{3 \cdot 3}{2 \cdot 3}} = 3n^{\frac{19}{6}}$$

$$\frac{10}{6} + \frac{9}{6}$$

$$17) x^5 y^{-2} (x^{13})^{-3} = x^{\textcircled{5}} y^{-2} (-x^{\textcircled{39}}) = -x^{-4} y^{-2}$$

$$= \frac{-1}{x^4 y^2}$$

2-4 Polynomial Vocab

I can identify the degree of a polynomial.

I can identify the number of terms in the polynomial (ie. the type of polynomial, trinomial, binomial, monomial).

Polynomials are named by degree and number of terms

For a polynomial with one variable, the Degree is the largest exponent of that variable.

Degree	Name	Example
0	Constant	2, 4, 6
1	Linear	$x+7$, $3x+2$
2	Quadratic	5^2 , x^2+4
3	Cubic	x^3
4	Quartic	x^4
5	to the power of	
6+		

$$2x^0 = 2 \cdot 1 = 2$$

Polynomials are named by degree and number of terms

TERMS are always separated by addition/ positive signs or subtraction/ negative signs.

Terms	Name	Example
1	Monomial	$-x^2, xy, 4a^2b^3c^5$
2	binomial	$-x+y, x^3+3x^2,$
3	Trinomial	$-x^3+2x^2+3, x^{16}+y^2+ab$
4+	Polynomial	x^4+2x^3+2x+1

Examples

$m + 7$ Linear binomial

1 Constant monomial

$-2x^3 - 10x^2 + 9x - 3$ Cubic
Polynomial

Quartic binomial

$$x^4 + 3x$$