

Vocabulary & Classifying Polynomials

Let's Review - Vocabulary (Take out your homework.)

What is a polynomial?

Examples:

Always write polynomials in **standard form**, meaning alphabetical order from highest to lowest exponent!

Brainteaser: Are the following polynomials?

$$3xy^{-2}$$

$$\frac{1}{x}$$

$$\sqrt{x}$$

What is a term?

What is a coefficient?

Working with a partner, complete the table for the given polynomial: $m^3 + 8m^2 - 10m + 5$.

	1 st	2 nd	3 rd	4 th
Term	$+m^3$			
Coefficient	+1			
Power	m^3			
Exponent	3			

The *exponent* of a term in a polynomial is also called the _____.

The degree of $8m^2$ is _____.

Classifying Polynomials

Polynomials are classified based on the number of terms.

1 term is a _____

2 terms is a _____

3 terms is a _____

Examples: $-6x^2 + 4x$ $\frac{2}{3}x^4$ $0.5x^3 + 7.4x^2 + 3.2$ 8

Polynomials are also classified based on the term with the greatest exponent or degree.

Examples: $-6x^2 + 4x$ $5x^3 + \frac{2}{3}x^4$ $3.2 + 7.4x^2 + 0.5x^3$ 8
Degree: _____ Degree: _____ Degree: _____ Degree: _____

Let's Practice

Write each polynomial in standard form. Determine if it is a monomial, binomial, or trinomial. State the degree of the polynomial.

1. $12.5t^3$
Standard Form: _____
of Terms: _____
Degree: _____

2. $h - 10 + h^2$
Standard Form: _____
of Terms: _____
Degree: _____

3. $-12 + 32j^3$
Standard Form: _____
of Terms: _____
Degree: _____

4. $7 - 3n^2 + n^4$
Standard Form: _____
of Terms: _____
Degree: _____

How do you know when an expression is a polynomial?