

## Lesson 1 - Intro to Polynomials

### What is a variable?

- A letter that represents an unknown real number

### What is a term?

- A number or a variable or a product of a number and variable...there can be exponents on the variables

Can the exponents be negative?

Examples of terms:

$$17 \quad m^2 \quad 4g^3 \quad -75m \quad \frac{b}{5}$$

### What is a coefficient?

The numerical factor of a term

### What is a constant?

Occurs when a term is a number only

All of these things are used to create polynomials.

Polynomials come in different flavors determined by the number of terms they possess;

**Monomials:**

**Binomials:**

**Trinomials:**

**Polynomials:**

**What is the Degree of a Term?**

The sum of the exponents on all variables of the term

**What is the Degree of a polynomial?**

**What is the leading term of a polynomial?**

The term with the highest degree found in the polynomial

**What are like terms? How do you tell if two terms are like terms?**

Must contain two things:

Examples:

$$3m^2 \text{ and } -4m^2$$

$$14xy^2 \text{ and } 5y^2x$$

$$m^3n^2 \text{ and } 4m^2n^3$$

**Which of the following are polynomials?**

$$\frac{1}{m}$$

$$r^0 + r^2$$

$$-7$$

$$b^3 - 2b^2 + 17$$

$$\sqrt{x+8}$$