

# Polynomials

Define each of the following and give an example:

<i>Polynomial</i>	<i>Terms</i>	<i>Binomial</i>	<i>Trinomial</i>

**\*\*Like terms are two or more monomials that have the exact same variables to the exact same exponents and may only differ by coefficients.\*\***

Find the degree for each polynomial:

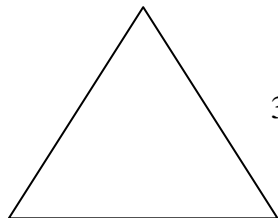
1.  $x^2 - 3x^3 + 2x$

2.  $7xy^2 - 7x^2y + 8x^3y - 16xy^4$

Simplifying a polynomial means to perform the indicated operations and combine like terms. Simplify the following:

3.

$(6a - 5)$



$3a$

$(3a + 2)$

Find the perimeter of the triangle.

4.  $(-4x^3 - 3x + 10x^2) - (8x^2 + 2x - x^3 - x^4)$

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

6.  $-9a^2(3a - 7b^3)$

Find the product of each using FOIL or Distributive property:

7.  $(x + 8)(x + 12)$

8.  $(x + 3)^2$

9.  $(4c - 5)(2c - 3)$

10.  $(3y^2 - 2)(-2y + 1)$

11.  $(2x^2 + 10x - 4)(x - 12)$