

Monomial

A MONOMIAL IS AN EXPRESSION CONTAINING NON-NEGATIVE AND NON-FRACTIONAL INTEGER POWERS OF THE VARIABLES, THE NUMBERS, AND HAVING JUST ONE TERM. IT HAS NO VARIABLE IN THE DENOMINATOR.

EXAMPLES: -50 $20A$ $-20X^2Y^3$ $18XY$

Polynomial

A POLYNOMIAL IS AN EXPRESSION CONTAINING NON-NEGATIVE AND NON-FRACTIONAL INTEGER POWERS OF THE VARIABLES, THE NUMBERS, AND HAVING TWO OR MORE THAN TWO TERMS. IT HAS NO VARIABLE IN THE DENOMINATOR.

EXAMPLES: $16X-12Y$ $8X^2Y+3X-4Y+2$ $12X^2Y^3+3XY+4Y-6XY-10$

Finding Number of Terms

Example: $3x-4xy+5x^2y-2?$

The number of terms is 4. It can be found out by counting the terms separated by addition and subtraction.

Finding Degree of Polynomial

Example: $3x-4xy^2+5x^2y^3-2?$

The degree of the polynomial is the highest degree of the terms involved.

$3x$ $4xy$ $5x^2y^3$ 2

degree=1 degree=2 degree=5 degree=0

Hence, degree of the given polynomial is 5.

Classification of the Expressions as monomial, binomial or trinomial

Example: $2xy+4y^2+5x^2y$

The expression can be classified as either monomial, binomial or trinomial. It just depends on the number of terms in the expression.

There are three terms present in the given expression which have been separated by either addition or subtraction.

Hence, the given expression is trinomial as there are three terms.

**Interpret
the context
of the
expressions**

Degree of a Monomial or a Polynomial

THE DEGREE OF A MONOMIAL IS THE SUM OF THE EXPONENTS OF THE VARIABLES INVOLVED IN IT.

THE DEGREE OF A POLYNOMIAL IS THE HIGHEST DEGREE OF ITS TERMS.

EXAMPLES:

4 DEGREE=0

$8X^2Y$ DEGREE=3

$2X-2XY+3X^2Y-3$

DEGREE=3

$3X-2Y+4XY^2+3X^2Y^3$

DEGREE=5



Meets: Common Core Standard High School – HAS-SSE.A.1a