Lesson 2-7: Intro to Polynomials

A **polynomial** is simply a name given to an algebraic expression that:

* Does not have variables in the denominator of any terms
* Does not have variables inside the radical sign
* Does not have a negative exponent on the variable

Terminology used to describe the parts of a polynomial

the **variables** are

the **terms** are

the **constants** **terms** are

the **coefficients** are

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | # of terms | Variables | Constant terms | Coefficient |
| 2 – 6a³ b + c² |  |  |  |  |
| 3ab³ – 6b |  |  |  |  |
| 5p |  |  |  |  |

Polynomials are given special names to represent the number of terms they have

a polynomial with one term is a

a polynomial with two terms is a

a polynomial with three terms is a

The degree of a term is the sum of the exponents of its variables.

Ex: 5*x*4 is a ­­­­­\_\_\_\_\_ degree term

 -3*x*2 y is a \_\_\_\_\_ degree term

The degree of a polynomial is the same as the highest degree of any of its terms

ex: 2*x*3 – 8*x*2 + 5 is a \_\_\_\_ degree polynomial

 -6a3 b2 c – 7 b3 c2 is a \_\_\_\_\_ degree polynomial

On our own:

|  |  |  |  |
| --- | --- | --- | --- |
| Polynomial | # of terms | Name |  Degree |
| 5 |  |  |  |
| 3*x* |  |  |  |
| 4 *x + 2* |  |  |  |
| *x*2 +3 *xyz* + 8 |  |  |  |
| 3 *x*3y2 + 2 *x*2y2 – *x*y2 *– 7* |  |  |  |
| 4 *x*4 – 5 *xy* – 4 |  |  |  |

Alga tiles

$$=x^{2}$$

=1

=$x$

In our notes/quizzes/assignments and exams shaded is positive and white is negative

= negative

= positive

In the text book yellow is positive and red is negative

Use your tiles to represent each

 



What do each of the following represent?

a)



b)

Which polynomials are equivalent?

1) a) 

 b) 

 c) 



2. group A Group C



Group B

Homework Pg 214 #4, 5, 7, 11(abc), 12, 13