**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Polynomial Function:**

Ex. Is it a polynomial?

 a) 

 b) 

 c) 

 d) 

A polynomial is in ­­**STANDARD FORM** when:

* They are ordered from left to right in **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** order; which means from the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** exponent to the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

The **DEGREE** is:

* The **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** exponent in polynomial. It determines the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.

Ex: **–7x + 9 – 4x2**  The degree is \_\_\_\_.

Classifying:

The **LEADING COEFFICIENT** is:

* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ once in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

A **CONSTANT** is:

* The term \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a variable.

a) 

standard form:

degree:

leading coefficient:

constant:

b) 

standard form:

degree:

leading coefficient:

constant:

You can classify polynomials by **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Polynomial | # of Terms | Name by # of Terms | DEGREE | Name by Degree |
|   |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**Adding and Subtracting Polynomials:**

**Adding:**

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Subtracting:**

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
1. 
2. 
3. 
4. 