# **13.1 – Polynomial Functions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Polynomial Example** | **Degree** | **Name Using Degree** | **Number**  **of Terms** | **Name Using**  **Number of Terms** |
|  | 0 | Constant | 1 | Monomial |
|  | 1 | Linear | 2 | Binomial |
|  | 2 | Quadratic | 3 | Trinomial |
|  | 3 | Cubic | 4 | Polynomial of 4 Terms |
|  | 4 | Quartic | 5 | Polynomial of 5 Terms |
|  | 5 | Quintic | 2 | Binomial |

\*Standard Form of a polynomial is written in descending order by degree.

**Examples:**

Write each polynomial in standard form. Then, classify it by degree and by number of terms.

|  |  |
| --- | --- |
| Standard Form: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Standard Form: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Sometimes like terms will need to be combined before the polynomial can be written in Standard Form. Like terms must have the same variable with the same exponent.

|  |  |
| --- | --- |
| Standard Form: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Standard Form: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Standard Form: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Standard Form: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |