Math 1 **8.1 Adding and Subtracting Polynomials**  Unit 7

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| **Important Vocabulary** | |
| **Monomial:** |  |
| **Polynomial:** |  |
| **Degree of a Polynomial:** | The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of all the exponents within the polynomial. |
| **Standard for of a Polynomial:** |  |

**Classifying Polynomials**

|  |  |  |  |
| --- | --- | --- | --- |
| **Polynomial** | **Degree** | **Number of Terms** | **Term Name** |
| 6 |  |  |  |
| 5x + 9 |  |  |  |
| 4x2 + 7x + 3 |  |  |  |
| 2x3 |  |  |  |
| 8x4 – 2x3 + 3x |  |  |  |

Write each polynomial in standard form. What is the name of the polynomial based on its number of terms?

1. 3x + 4x2
2. 4x-1+5x3 + 7x
3. Write 2x – 3 + 8x2 in standard form. What is the name of the polynomial based on its degree and number of terms?
4. How does writing a polynomial in standard form help you name the polynomial?

**To ADD – combine like terms**

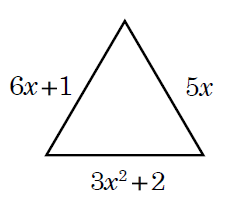
1. (4a2 + 7a – 12) + (9a2 – 6 + 2a)
2. (3a2 – 3ab – b2) + (4ab + 6b2)

**To SUBTRACT – distribute a –1 then combine like terms**

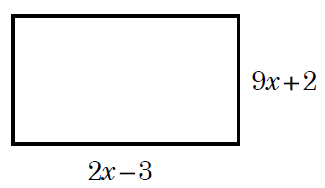
1. (6a2 – 8a + 12b3) – (-11a2 + 6b3)
2. (7a – 10b) – (3a + 4b)
3. 7p – (9p + 3w)
4. (12x – 19y) – 10y

**Application – Perimeter of Figures**

1. Find the perimeter of the triangle below.



1. Find the perimeter of the rectangle below.



1. If the perimeter of a triangle is 8x – 11, what is the length of the missing side of the triangle?

