

Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

## Vocabulary:

| Word          | Meaning |
|---------------|---------|
| Base          |         |
| Binomial      |         |
| Coefficient   |         |
| Degree        |         |
| Exponent      |         |
| Monomial      |         |
| Polynomial    |         |
| Standard Form |         |
| Trinomial     |         |
| Variable      |         |

| # of terms | name       | example              |
|------------|------------|----------------------|
| 1 term     | monomial   | $3x^2$               |
| 2 terms    | binomial   | $3x^2 + x$           |
| 3 terms    | trinomial  | $3x^2 + x + 1$       |
| many terms | polynomial | $x^3 + 2x^2 - x + 5$ |

☒ The degree of a polynomial is the \_\_\_\_\_.

|                                 |                              |
|---------------------------------|------------------------------|
| 1) $x^3 + 4x^2 + 1$ degree_____ | 2) $x^2 + x + 1$ degree_____ |
|---------------------------------|------------------------------|

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|                         |                        |
|-------------------------|------------------------|
| 3) $x - 3$ degree _____ | 4) 6      degree _____ |
|-------------------------|------------------------|

### Standard Form

Arrangement of variables from \_\_\_\_\_ to \_\_\_\_\_,

From \_\_\_\_\_ to \_\_\_\_\_ degree of power.

|                    |                                   |
|--------------------|-----------------------------------|
| 5) $8 + 3p^2 + 4p$ | 6) $x - 4 + 11x^3 + 16x^4 - 2x^2$ |
|--------------------|-----------------------------------|

### **Adding Polynomials:**

Leave all signs the way they are and combine LIKE TERMS, don't touch exponents.

Remember: Like terms have the EXACT SAME variable, EXACT SAME exponent!

|   |  |
|---|--|
| 7) $(4x^2 - 3x + 2) + (-7x^2 + 5x - 1)$ | 8) $(3x^2 + 4y - 8) + (5x^2 - 7 + 9y)$ |
|---|--|

### **Subtracting Polynomials:**

Add the opposite (change to add, change signs in second expression),  
then combine like terms.

|   |  |
|---|--|
| 9) $(9x^2 - 4x - 1) - (7x^2 - 3x + 10)$ | 10) $(7x^2y - 10xy^2 - 4xy) - (7xy^2 - 3xy + 3x^2y)$ |
|---|--|