

Date:

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**(A) Lesson Objectives:**

- a. Introduce the meaning of like terms, unlike terms, polynomials.
- b. Review how to add and subtract polynomials.
- c. Practice adding and subtracting polynomials.
- d. How to check results on the graphing calculator.

**(B) Definitions of Key Terms:**

- a. Like Terms: \_\_\_\_\_.
- b. Unlike Terms: \_\_\_\_\_.
- c. Variable: \_\_\_\_\_.
- d. Coefficient: \_\_\_\_\_.
- e. Leading Coefficient: \_\_\_\_\_.
- f. Polynomial Term: \_\_\_\_\_.
- g. Polynomials: \_\_\_\_\_.
- h. Degree of a Polynomial: \_\_\_\_\_.
- i. Naming of Polynomials \_\_\_\_\_.
- j. Writing Polynomials: \_\_\_\_\_.

**(C) In Class Practice: Name each polynomial by degree and number of terms:**

- |                           |                      |
|---------------------------|----------------------|
| a. (i) $2p^4 + p^3$       | (ii) $-10a$          |
| b. (i) $2x^2$             | (ii) $-10k^2 + 7$    |
| c. (i) $-5n^4 + 10n - 10$ | (ii) $-6a^5 + 10a^3$ |
| d. (i) $6n^6$             | (ii) $1$             |
| e. (i) $-9n + 10$         | (ii) $5a^3 - 6a + 7$ |
| f. (i) $8p^3 - 5p^2 - 7$  | (ii) $-7n^7 + 7n^4$  |

**(D) Rule for adding and subtracting polynomial expressions:**

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(E) **In Class Practice**: Combine all like terms in the following expressions

a. (i)  $8x + 4 - 6x - 7$

(ii)  $4y^2 - 20 + 3y^2 + 5$

(iii)  $3w - 2(3 - 5w)$

b. (i)  $2x^2 + 3x - 7 + 5x^2 - 8x + 3$

(ii)  $-3x^2 + 9x - 6 + 4x^2 - 2x - 8$

(F) **Algebraic Examples – In Class**

Level 1:

<http://www.teacherweb.com/NY/Arlington/AlgebraProject/U6L3CombiningLikeTerms.pdf>

Level 2: - watch at least the first example of video #3 and EXPLAIN how to verify your answer on the graphing calculator. Then in your work, verify your answers.

<http://www.kutasoftware.com/FreeWorksheets/Alg1Worksheets/Adding+Subtracting%20Polynomials.pdf>

(G) **Homework/Resources**

- **HW: from Textbook** → none
- Video help from OnlineMathLearning with adding/subtracting polynomials:
  - o <http://www.onlinemathlearning.com/adding-subtracting-polynomials-2.html>
- Reading from PurpleMath
  - o <http://www.purplemath.com/modules/polydefs.htm> and
  - o <http://www.purplemath.com/modules/polyadd.htm>

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PreQuiz – Basic Concepts

(i)  $(3x + 5) + (-4x + 11) + (2x - 1)$

(ii)  $(12a - 6a^2 - 10) - (10a - 2a^3 + 5)$

(ii)  $5x^2 - 4 + 6y^2 - x^2 + 3 + 2y^2 - 1$

(iv)  $(-9v^2 - 8u) + (-2uv - 2u^2 + v^2) - (-v^2 + 4v)$

My rating:

M – I don't really understand this. It's really confusing	N - I get it a bit, but not that well because it's a bit confusing
O – I get it, but I make minor errors	P – This is really easy and I don't make mistakes!

My Score: \_\_\_\_/4

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