

## Math 9 Assignment 2: Polynomials

Name: \_\_\_\_\_

1.  $10p + 4p$

2.  $w + 3w$

3.  $4z - 7z$

4.  $3a^2 - 5a + a^2 + 8a$

5.  $3x(x - 7)$

6.  $(2x - 5) - (4x + 3)$

7.  $-3(4x^2 + 3x - 3)$

8.  $2x(1 - 5x - 8x^2)$

9.  $(x^2 - 2x - 1) - (3x^2 - 4x + 2)$

10.  $(16e^2 - 8e) \div -4e$

11.  $\frac{15x^3}{10x}$

12.  $\frac{2}{3}x + \frac{x}{5}$

13.  $\frac{x}{3} - \frac{x}{4}$

14.  $\frac{5x}{2} - \frac{x}{3}$

15.  $\frac{3a}{4} - 3a$

16.  $\frac{8xy^3 + 10x^3y^4}{6xy^2}$

17.  $-\frac{6a^3b - 8a^2b^2}{2ab}$

18.  $2x^3 + 3x - 4x^2 - (x^2 + 3x - 5x^3)$

19.  $-3(3a^3 + 5a^2) + a^2 - (2a^2 - 4a^3)$

20.  $\frac{1}{2}(6x^2 - 8x - 12) - \frac{3}{2}(6x^2 + 12x - 4)$

21. Represent  $(2x - 1)(x + 2)$  with algebra tiles.

22. The polynomial  $P(x) = 4x^3 - 7x^2 + 5 - x^6$

a. How many terms are in this polynomial?

b. What is the coefficient of the  $x^2$  term?

c. Find the degree of this polynomial

d. Find the constant term

23. What is the degree of the following polynomial?

$$5x^3y^2 + 3xy^3 + 2x^3y^3z - 100$$