

Name: _____

Algebra II H (P.3)

- 1) Define what a polynomial is:

- 2) Write a trinomial of degree 4.

- 3) Write an expression (that includes a variable) which is not a polynomial.

- 4) Perform each operation and simplify:
 - a) $-2(3x^3 - 5x + 8) - x(2x^2 - 4x + 6)$

 - b) $(4x - \frac{1}{2})(-3x + 6)$

 - c) $(\frac{2}{3}x - 1)^2$

 - d) $(x - 4)(2x^2 - 3x + 5)$

5) Why is it impossible to have a linear trinomial with one variable?

6) Simplify: $(a + b)^2 (b - c)^2$

7) Simplify and then classify by degree and number of terms: $2x + 3x^2(4x - 5)$

8) $(-4x^2 - 5x - 1)(4x^2 - 6x - 2)$

9) $(-10mn^3 - 4n^4) - (-2n^4 - 7mn^3 - 6n^3) - (5n^3 + 6mn^3)$,

10) $(-4m - 4n)(-6m - 6n)$

11) $-2(3x^3 - 5x + 8) - x(2x^2 - 4x + 6)$