Polynomials Basics

Name:_____

1. Classify the following as "monomial", "binomial", or "trinomial"; and give the degree.

(A) $x^3 - \sqrt{2}x^4 + 5$

TRINOMIAL
degree = 4

(B) $4 - x^3$

(C) $100x^2 - 2x^8 + 3x^4$

(D) $(4 + \sqrt{2})x$

(E) $e^{10} + x^2$

(F) $1 - x^{100} + 400x^2$

2. Add or subtract the following. Simplify your answer as much as possible.

(A) $(1 - x) + (2x + 3)$

(B) $(1 + 2x - x^2) + (2x + 3)$

(C) $(2 - x^2) + (2x^3 + 3)$

(D) $(x^2 + 2x - 4) + (2x^2 - 4x - 1)$

(E) $(x^2 - 2x + 1) - (2x^2 + 3x - 1)$

(F) $(x^3 - 2x^2 + 3) - (2x^2 + 3x - 1)$

3. Evaluate the following.

(A) $x^2 + 2x + 1$ at $x = 0$

(B) $x^2 + 2x + 1$ at $x = 1$

(C) $x^3 - 3x^2 + 5$ at $x = 0$

(D) $x^3 - 3x^2 + 5$ at $x = 2$

(E) $x^3 + 4x^2 + x$ at $x = 0$

(F) $x^3 + 4x^2 + x$ at $x = -3$