Name _____

Homework 10
Sections 3.1 & 3.2

Determine the degree, leading term, and constant coefficient for the following polynomials.

1. (3) $f(x) = 4x^2 + 14x^3 - 5x^6 - 4x - 1$

   Degree: _____

   Leading term: _____

   Constant Coefficient: _____

2. (3) $P(x) = -2(x-3)(x-1)^2(x^2+2)$

   Degree: _____

   Leading term: _____

   Constant Coefficient: _____

3. (3) $p(x) = (-2x+3)^2(3x-1)+2$

   Degree: _____

   Leading term: _____

   Constant Coefficient: _____

4. (3) $Q(x) = x(x-5)^5(x-7)^4(x+10)(3x+6)^2$

   Degree: _____

   Leading term: _____

   Constant Coefficient: _____

5. (3) Determine a polynomial *function* which has degree 3, leading coefficient 5, and whose graph has x-intercepts at $(-6, 0)$, $(2, 0)$ and $(0, 0)$.

6. (5) Determine a possible equation for the polynomial function graphed below.