

Algebra II  
Polynomial #2

Name \_\_\_\_\_

Identify the degree of the polynomial, end behavior, zeros, multiplicity of each zero, and behavior at each zero.

1.  $y = (x + 7)^5(x - 4)^4(x - 3)$

2.  $f(x) = x(x + 6)^3$

3.  $g(x) = -x^3(x + 3)^5(x - 8)^4$

4.  $y = 2x^8(x - 1)^3$

5.  $g(x) = (x - 3)(x + 4)(x - 7)^2(x + 7)(x + 9)$

6.  $f(x) = -x^6(x + 3)^7(x - 8)$