

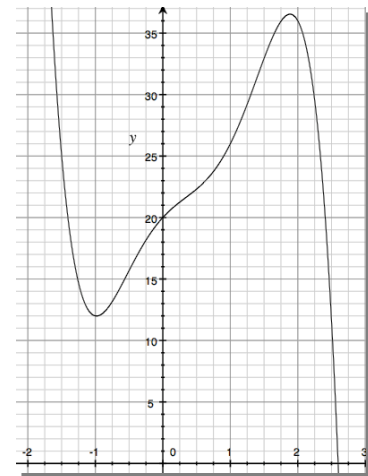
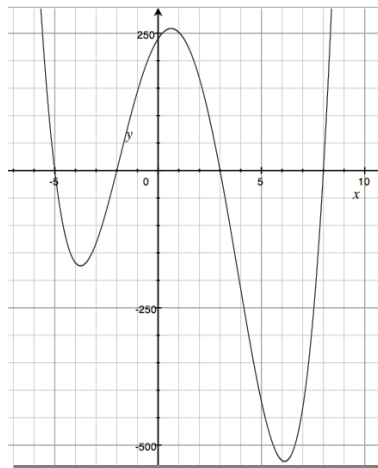
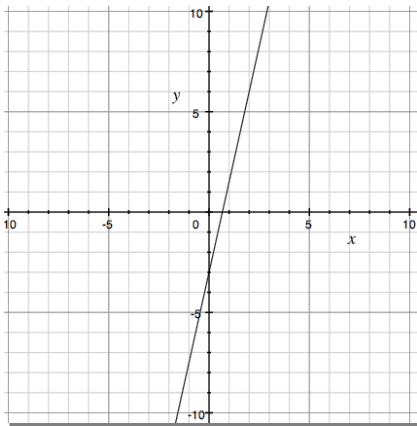
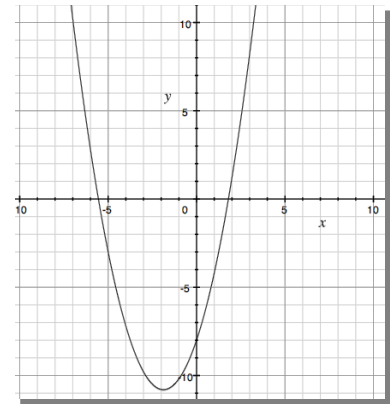
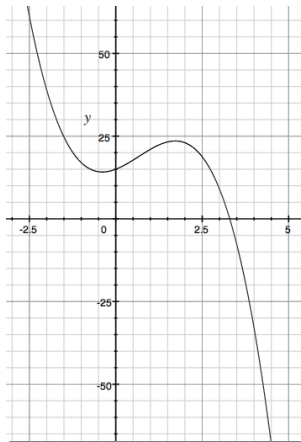
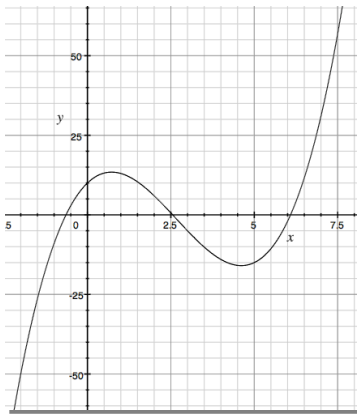
**Math 3**  
**Unit 3 Day 2 HW**

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

Date: \_\_\_\_\_

This worksheet consists of 6 graphs, 6 functions, 6 descriptions of “end behavior”, and 6 descriptions of the roots. Your task is to create 6 sets- each set matches a function with its graph, the description of its roots, and its end behavior that matches that function. The scales on the pictures aren’t all the same, but you can use what you know to connect each of these pieces of information.

1) $y = .8x^2 + 3x - 8$	2) $y = 4.5x - 3$	3) $y = -2x^5 + 4x^4 + 3x^3 - 5x^2 + 6x + 20$
4) $y = (x+2)(x-3)(x+5)(x-8)$	5) $y = x^3 - 8x^2 + 10x + 10$	6) $y = -2x^3 + 4x^2 + 4x + 15$



**# of zeros:**

**End Behavior:**

4 real roots	3 real roots	1 real root, 2 imaginary roots
1 real root, 4 imaginary roots	1 real root	2 real roots

$(-\infty, -\infty)$	$(\infty, \infty)$	$(-\infty, \infty)$
$(\infty, -\infty)$	$(-\infty, \infty)$	$(\infty, \infty)$