Name _____ Per. ____ Date_____ Score _____

Activity 14 Worksheet (Key Attributes of Polynomial Functions)

Use the Leading Coefficient Test to determine the end behavior of the graph of the polynomials function.

1. $f(x) = -2x^3 - 2x$

2. $f(x) = 4x^4 - 2x^2 + 3$

3. $f(x) = -x^6 + 1$

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

Determine if the function is even, odd, or neither.

5. $f(x) = -2x^3 - 2x$

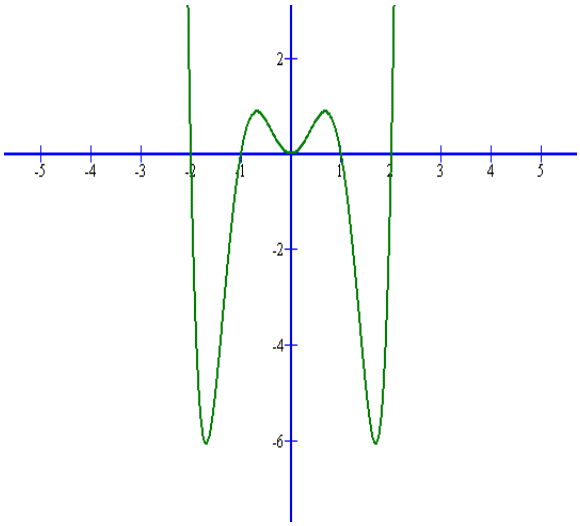
6. $f(x) = 4x^4 - 2x^2 + 3$

7. $f(x) = -x^6 + 1$

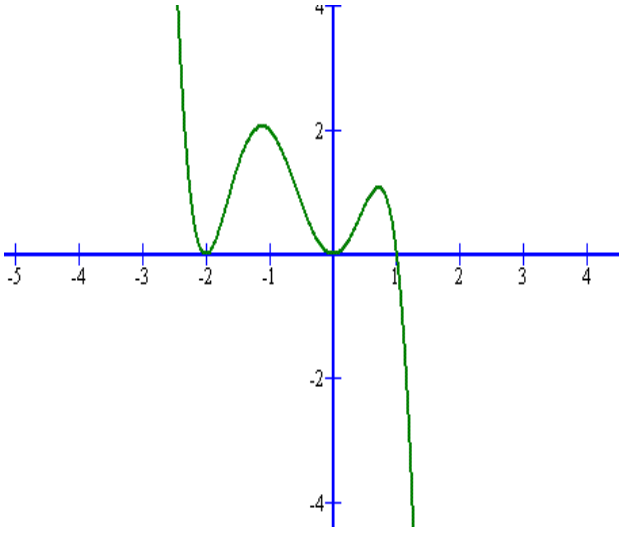
8. $f(x) = 4x^5 + 2x^4 - 3x^2 + 2x + 1$

Determine the degree of the function, the leading coefficient sign and estimate the relative maximum and minimum points.

9.

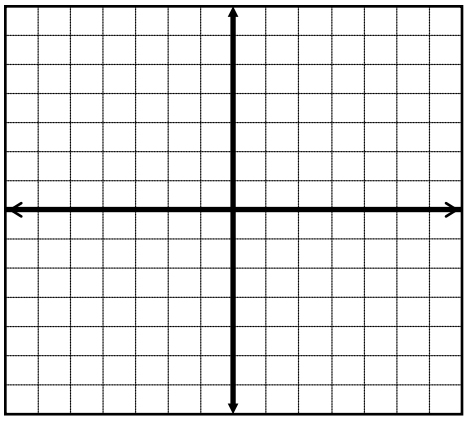


10.



Identify the end behavior, x-intercept(s), y-intercept, symmetry and then sketch the graph of the function. Use a graphing utility to check the graph. Identify any relative maximums or minimums.

11. $f(x) = -2x^3 + 4x^2 + 6x$

a) End Behavior **b) x-intercepts (solve)**	**c) y-intercepts** **d) Even, Odd, Neither?**
e) Graph **f) Relative maximums and minimums**	

12. $f(x) = x^4 - 5x^2 + 4$

a) End Behavior: **b) x-intercepts:**	**c) y-intercept:** **d) Even, Odd, Neither?**
e) Graph **f) Relative maximums and minimums**