

Name: _____ Date: _____

Even and Odd Functions

Algebraically

- A function is _____ if:
 - All of the exponents of the variable are _____.
- A function is _____ if:
 - All of the exponents of the variable are _____.
- A function is _____ if:
 - The exponents are a _____ of odd and even.

!CAUTION OF THE CONSTANTS!

Remember: All constants really have a _____, and x^0 is _____.

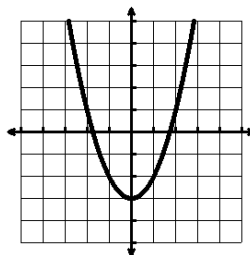
EX.1 $f(x) = x^3 - x$

EX.2 $f(x) = x^2 + 1$

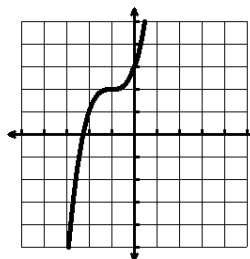
Graphically

- A function is _____ if:
 - The graph reflects across the _____.
- A function is _____ if:
 - The graph has 180° rotation symmetry about the _____.
 - Reflection over the x-axis and then a reflection over the y-axis.
 - **IT MUST GO THROUGH THE ORIGIN!**

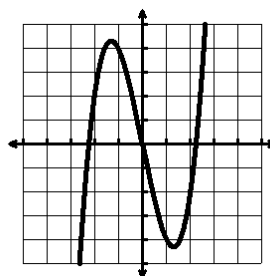
EX.1



EX.2



EX.3



Points of Intersection

Algebraically

1. Set the equations _____ to each other.
2. Solve for ____.
3. _____ x into either equation to _____.
4. Write answer as an _____.

EX.1 $f(x) = x^2 - 6$ $g(x) = x^2 - 2x$

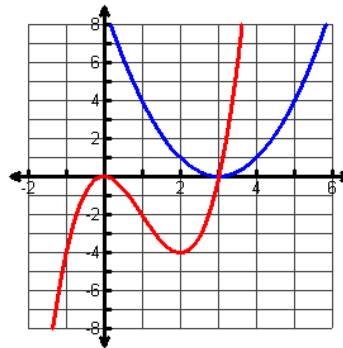
EX.2 $f(x) = x^2 + 2x - 3$ $g(x) = x - 1$

EX.3 $f(x) = x^2 + 2x + 2$ $g(x) = 2x + 1$

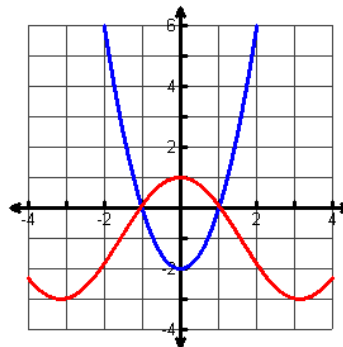
Graphically

1. _____ on ONE coordinate plane.
2. Find where the graphs _____.
3. Write answer as an _____.

EX.1



EX.2



EX.3

