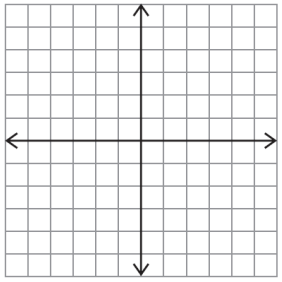
Name: _____ Period: ___ Due Date: March 18, 2019

(MATH 4/5 H)

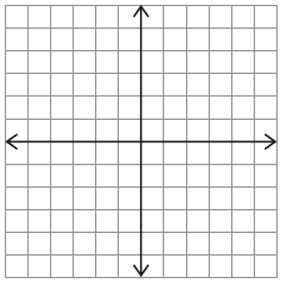
**Power & Polynomial Functions Homework #7**

**Directions: Sketch a graph of each of the following functions and identify the end behaviors.**

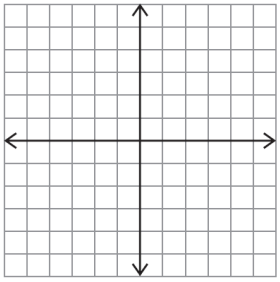
1. $f(x)=x^8$



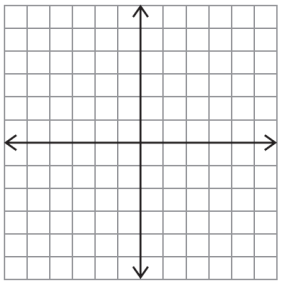
2. $g(x)=x^5$



3. $h(x)= -x^8$



4. $j(x)= -x^5$



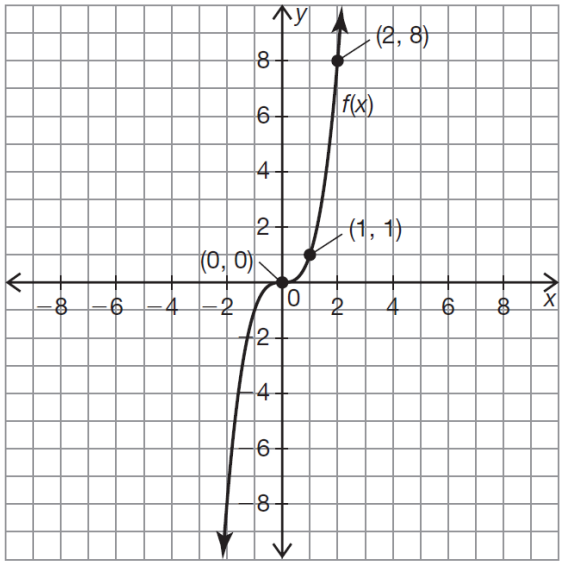
**Directions: Determine the type of symmetry of the function below (even/odd) and explain your reasoning.**

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

2. $n(x)= - x^6 + x^4 - x^2 + 1$

**Directions: Graph the transformations of the power functions and describe the transformations.**

1. g(x)=f(-x+3)+1



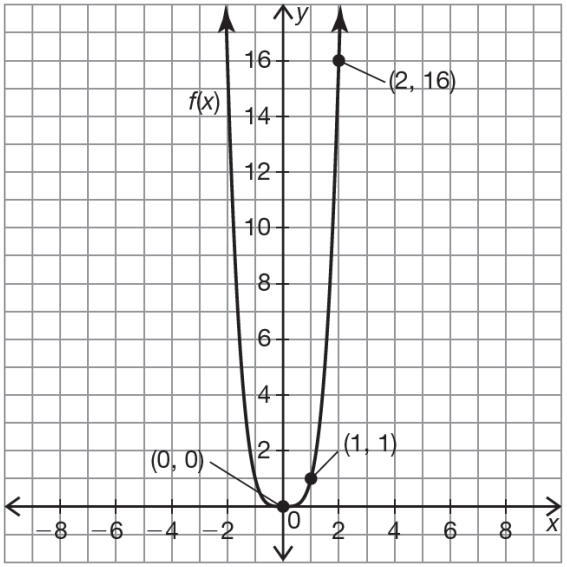

f(x) was _____

_____

_____

_____ to get g(x).

2. k(x)= - j(½x)




j(x) was _____

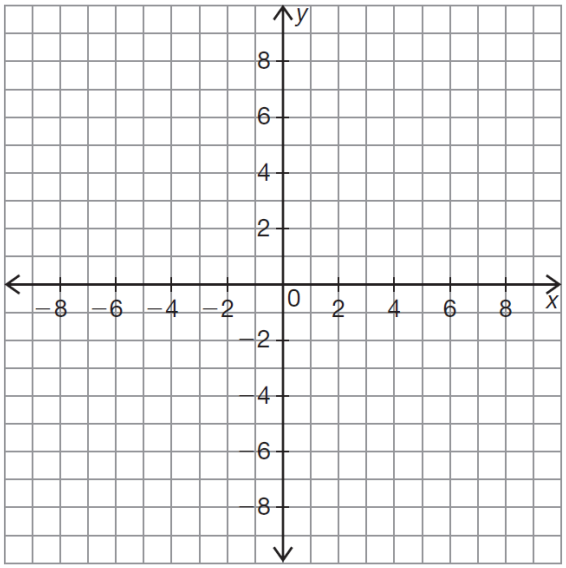
_____

_____

_____ to get k(x).

**Directions: Sketch a graph of each of the functions given the characteristics.**

1. f(x) is a negative degree 5 function that has a y-intercept at y=2 and x-intercepts at x=4, x=2, x=-3, x=7, and x=-1.




2. g(x) is an even degree function that has an absolute maximum at (2,6) and x-intercepts at x=5 and x=-1.