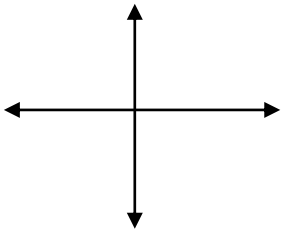
Name: Period:

First Score:	First attempt due:	Final Score:
	Final corrections due:	

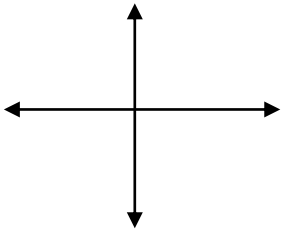
Practice: Even/Odd & Zeros

Use a graphing calculator to make a quick sketch of each and determine if the function is even, odd, or neither.

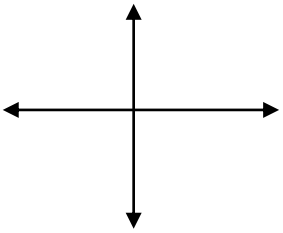
1] $k(x) = -\frac{20x}{x^2+8}$



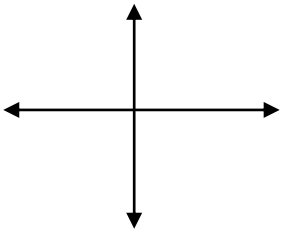
2] $f(a) = |5 - a^2|$



3] $g(s) = -4s^{2/3}$



4] $p(t) = t^2(t-3)^2$



Determine if the function shown in the table of ordered pairs is even, odd, or neither and CIRCLE your answer. Then, identify any zeros or x-intervals between which a zero must exist.

5]

X	Y1
-3	2.75
-2	-2.25
-1	-5.25
0	-6.25
1	-5.25
2	-2.25
3	2.75

Even, Odd, or Neither

x-intervals for two zeros:

6]

X	Y1
-3	-7.5
-2	0
-1	1.5
0	0
1	-1.5
2	0
3	7.5

Even, Odd, or Neither

Three zeros at:

$x =$

$x =$

$x =$

7]

X	Y1
-3	-6
-2	-4.667
-1	-3.333
0	-2
1	-.6667
2	.66667
3	2

Even, Odd, or Neither

x-interval for one zero:

8]

X	Y1
-3	16
-2	6
-1	0
0	-2
1	0
2	6
3	16

Even, Odd, or Neither

Two zeros at:

$x =$

$x =$

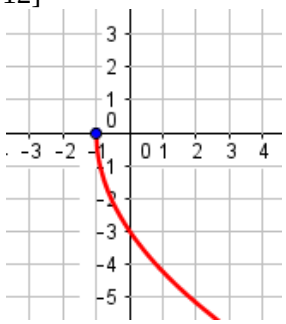
Determine if the polynomial function is even, odd, or neither.

9] $f(x) = 5x^{20} + 4x^{10} - 3$

10] $m(n) = 33n^3 - 333$

11] $u(v) = \frac{1}{2}v^3 + \frac{1}{4}v^5 - \frac{1}{6}v$

12]



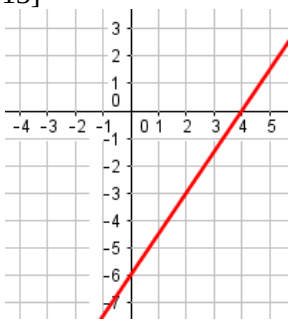
Type of function:

Domain:

Range:

Zeros:

13]



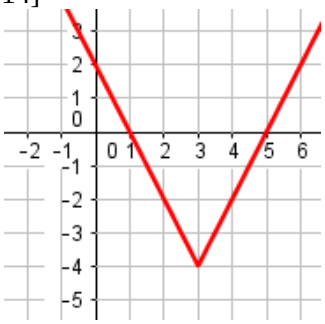
Type of function:

Domain:

Range:

Zeros:

14]



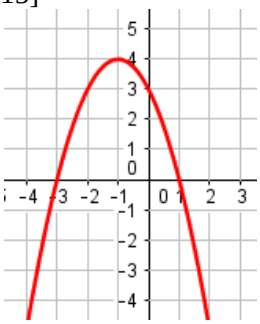
Type of function:

Domain:

Range:

Zeros:

15]



Type of function:

Domain:

Range:

Zeros:

Find the zeros of each function algebraically. You must show all work to get any credit!

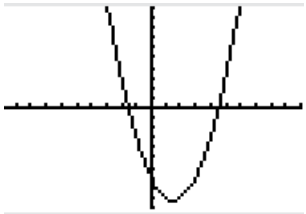
16] $f(x) = -4(x+5)^2 + 16$	17] $g(x) = \frac{1}{5}x - \frac{3}{10}$	18] $h(x) = 2\sqrt[3]{x-7} + 4$

Verify algebraically if the function is even $f(-x) = f(x)$, odd $f(-x) = -f(x)$, or neither.

19] $f(x) = \frac{10}{x^4 - 3x^2 - 2}$	20] $f(x) = x\sqrt{1-x^2}$	21] $f(x) = x^2 + 2x - 3$

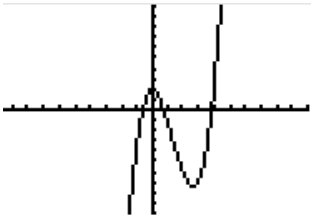
Use your graphing calculator to approximate the zeros of each function. Round zeros to four decimal places.

22] $f(x) = x^2 - 3x - 7$



Left bound:	Left bound:
Right bound:	Right bound:
Zero:	Zero:

23] $y = x^3 - 4x^2 + 2$



Left bound:	Left bound:	Left bound:
Right bound:	Right bound:	Right bound:
Zero:	Zero:	Zero:

BONUS QUESTION:
Write the equation of an absolute value function that has zeros at -1 and 5.