Mr. Doherty
Adaptive Algebra 2

Name: _____

5.4-5.9 Practice test

1) List all of the solutions to the following equation and place them on the line provided below: $(5x+6)(x-3)(x+1)=0$

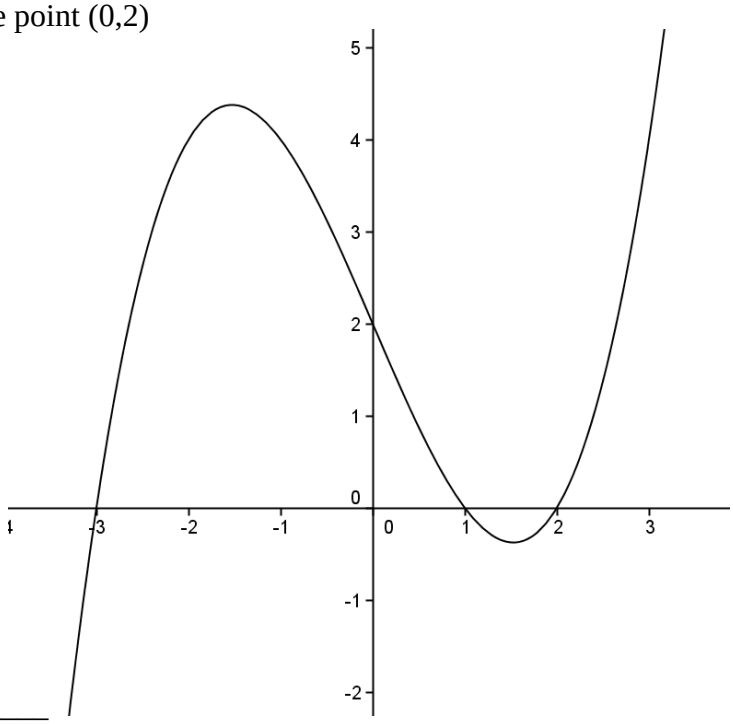
Solutions:_____

2) Calculator -Find all of the real zeros of the function given and write them on the line provided below.

$f(x)=x^4-x^3+2x^2+22x-60$

Zeros:_____

3) Write an equation for the polynomial that is graphed below given the fact that it is a 3rd degree polynomial and goes through the point (0,2)



Polynomial:_____

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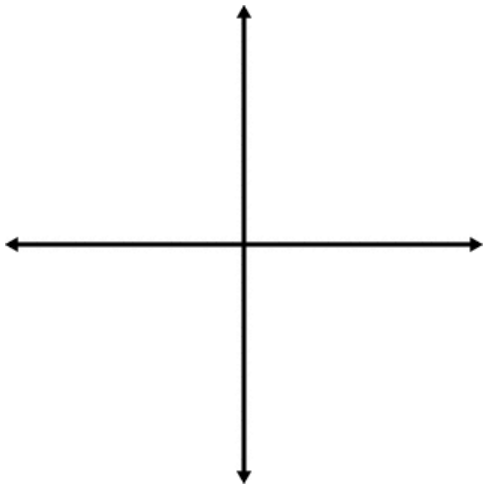
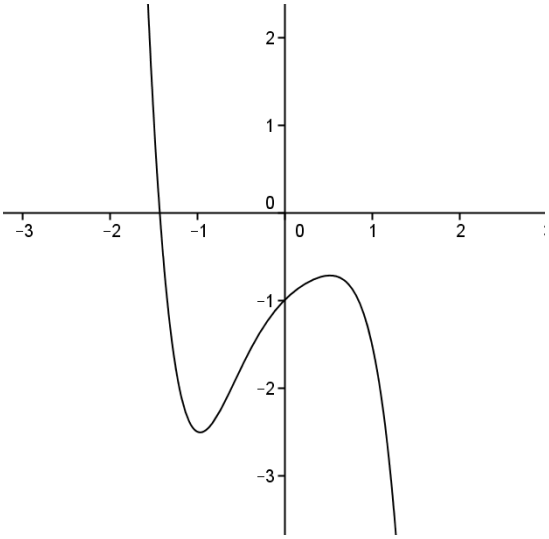
4) Make a sketch of the following function $f(x) = -2(x-3)(x+2)(x-1)$



5) Give all of the information you possibly can about the function graphed below



6) Factor the polynomial and find the zeros

$y = 4a^4 + 8a^3 - 60a^2$

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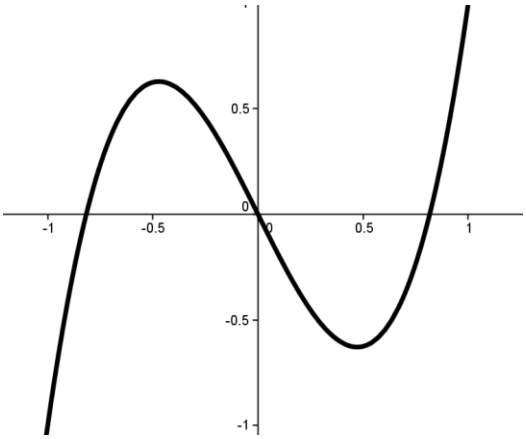
7) Simplify the expression

$(7a-6)(7a+6)$

8. Factor the polynomial $f(x)=x^3+7x^2+7x-15$ completely, given that $(x+5)$ is a factor. What are the zeros of $f(x)$?

9. Factor the polynomial $g(x)=x^3+8x^2+4x-48$ completely, given that $x=-6$ is a zero. What are all of the x-intercepts of $g(x)$

10. What is true about the degree and leading coefficient of the polynomial function whose graph is shown below?



A.) Degree is even, leading coefficient is negative.

B.) Degree is even, leading coefficient is positive.

C.) Degree is odd, leading coefficient is negative.

D.) Degree is odd, leading coefficient is positive.