Secondary III 8-2 Name _____

Finding Zeros and Graphing Polynomials Period _____

Find the zeros of the polynomial WITHOUT a calculator.

1. $f(x)=x^3+2x^2-11x-12$

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

3. $f(x)=x^3-2x^2-5x+6$

4. $f(x)=x^3+9x^2+26x+24$

Determine the zeros and multiplicity of each zero and state the end behavior.

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

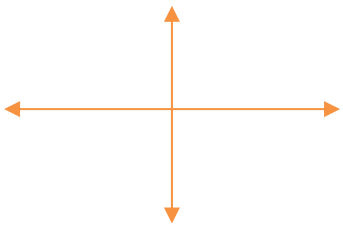
6. $f(x)=(x-1)^2(x-5)^3(x+3)$

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

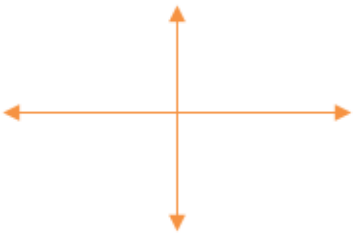
8. $f(x)=-x(x+2)^2(x-2)^3$

Sketch a graph of the polynomial function.

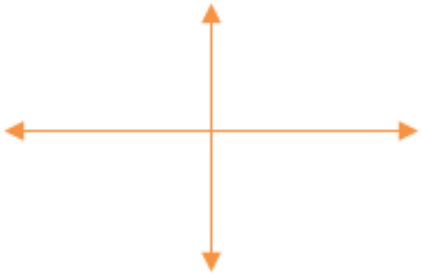
9. $f(x) = (x-3)(x+1)(x-2)$



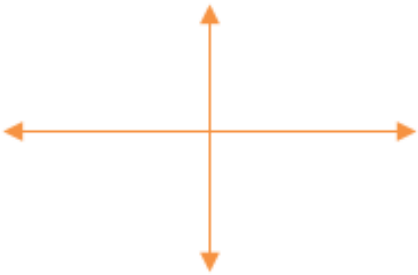
10. $f(x) = -(x-2)^2(x+4)^2$



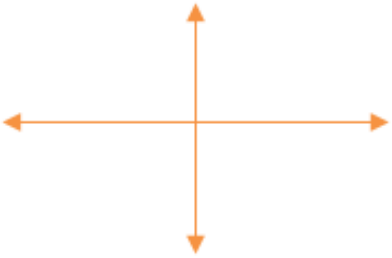
11. $f(x) = -(x+1)(x-2)(x-3)$



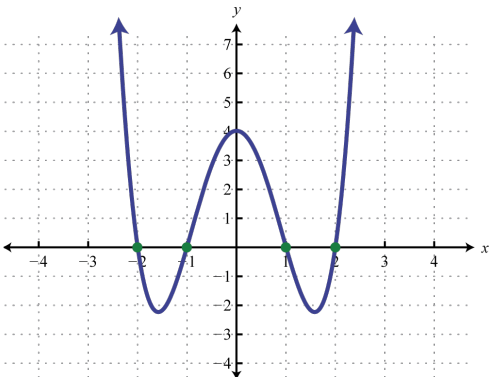
12. $f(x) = x(x-4)^2(x+3)$



13. $f(x) = x(x+2)^2(x-1)$



12. Identify the zeros and the multiplicity of each zero. Then write a polynomial from the graph.



13. Write a polynomial from the graph.