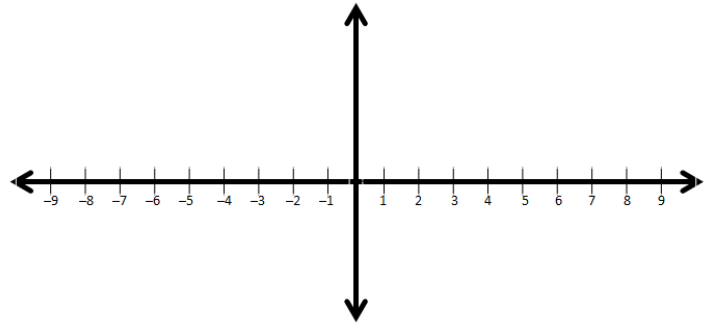
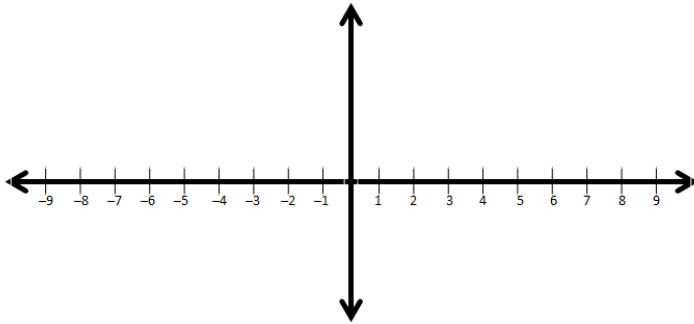


Name: _____ Period: _____ Date: _____

Sketch a graph of a polynomial with the given zeroes and corresponding multiplicities.

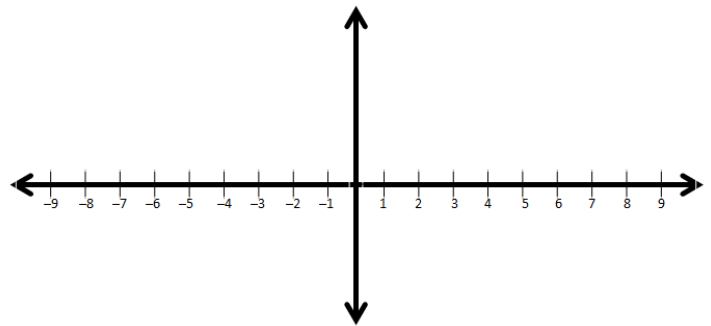
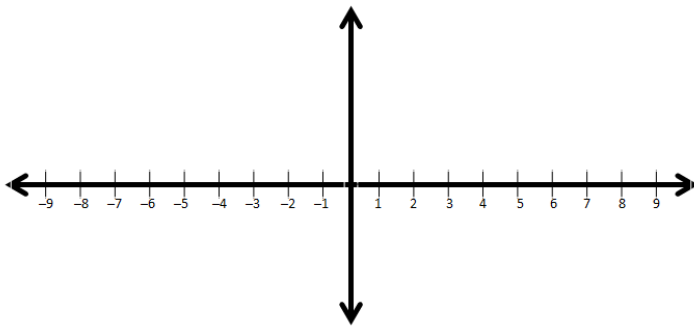
1) $x = -5$, of multiplicity 3 Leading Coefficient +
 $x = 0$, of multiplicity 2
 $x = 4$, of multiplicity 1

2) $x = 3$, of multiplicity 3 Leading Coefficient -
 $x = -2$, of multiplicity 2
 $x = 1$, of multiplicity 1



3) $x = -4$, of multiplicity 2 Leading Coefficient -
 $x = -2$, of multiplicity 2
 $x = 3$, of multiplicity 3

4) $x = -6$, of multiplicity 2 Leading Coefficient +
 $x = -3$, of multiplicity 1
 $x = 0$, of multiplicity 2
 $x = 5$, of multiplicity 1



5) Find a polynomial of degree three with the given
 $f(x) = ax^3 + bx^2 + cx + d$

given: $x = -3$, $x = 2$, $x = 3$

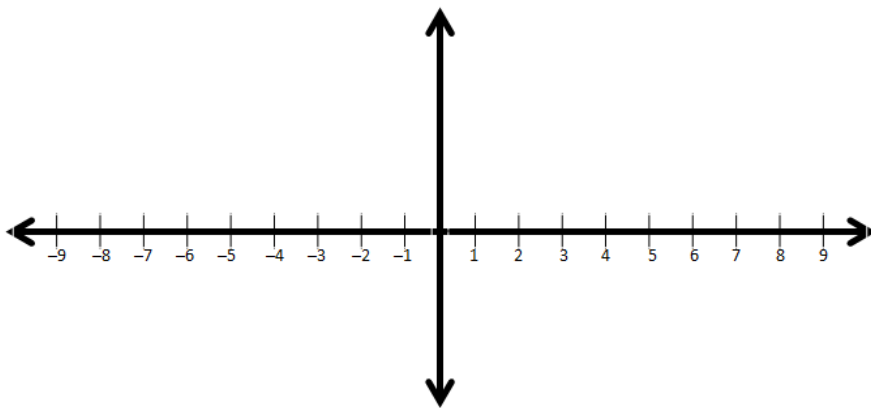
6) Find a polynomial (factored form) of degree 3 that fits the table of data
 $f(x) =$

x	f(x)
-4	0
-3	12
-2	10
-1	0
0	-12
1	-20
2	-18
3	0
4	40

Check your answer with the point (4, 40)

What is the y-intercept?

Sketch the graph



How did you determine the end behavior of the graph?