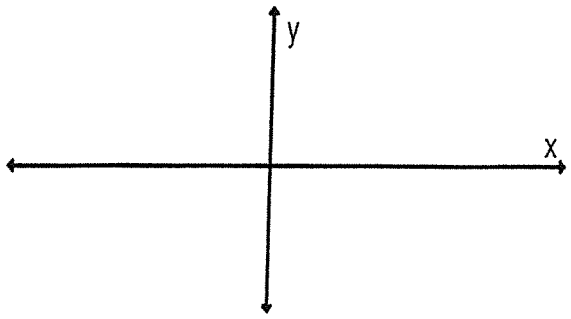
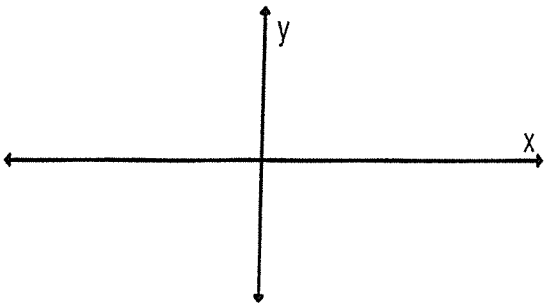
Alg 2 Hwk #23 Fall 2018 Name:

Sketch the graph of each polynomial. Label the x-intercepts and show the proper end behavior. Indicate each zero with a dot, label it with the correct value, and show the correct shape of each zero.

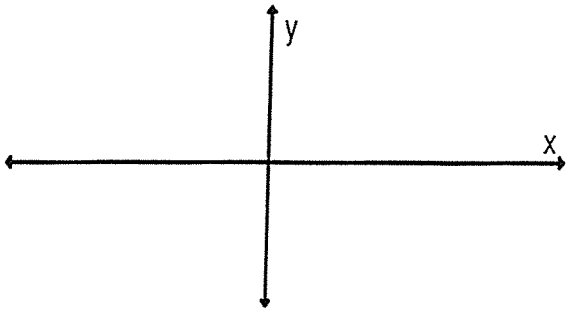
1. $y = -x(x+6)^2(x-4)^2$



2. $f(x) = (x-5)^2(x+2)^3(x+8)$

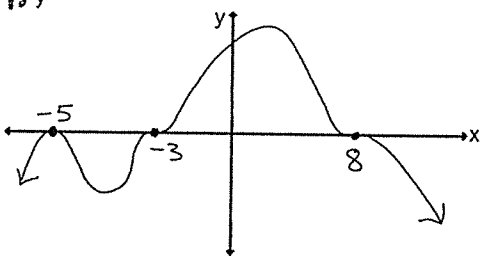


3. $y = 5x^2(x-2)^3(x+4)^2(x-6)$

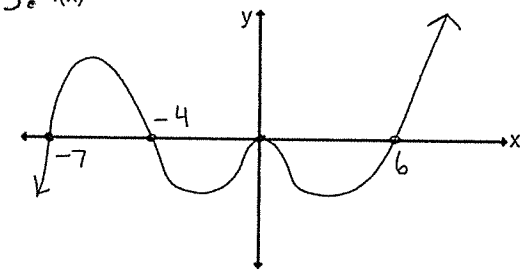


Write a possible equation for each polynomial shown in problems 4-6.

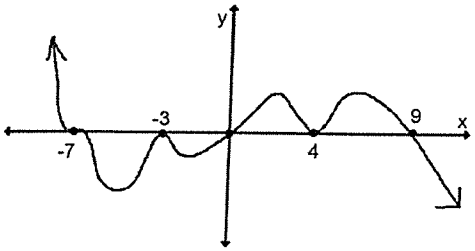
4. y =



5. f(x) =



6. y =



7. Write a possible equation of a polynomial that has the following zeros: $-2, -1, 5$ (all single zeros). Give your answer in Standard Form.

$y =$

8. Write the EXACT equation of a polynomial that goes through the point $(-1, 112)$ and has the following zeros: 6(single zero) and -3(double zero). Give your answer in Factored Form with the correct value of a.

$y =$