AA6- Group Test Name: _____ Per: _____
Polynomials

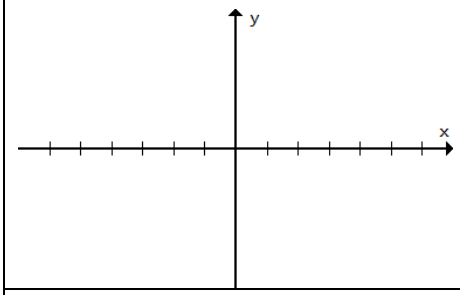
Group member names _____

C-Level (7 points each)

AA6-1 and AA6-2 I can graph and write the equations of polynomials

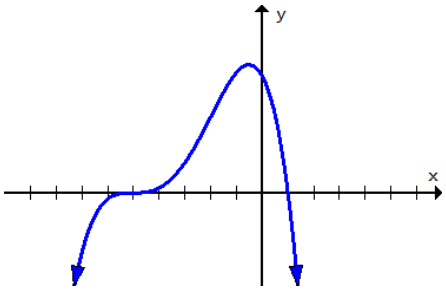
1. Sketch the polynomial:

$f(x) = (x+5)^2(x-4)(x+1)$



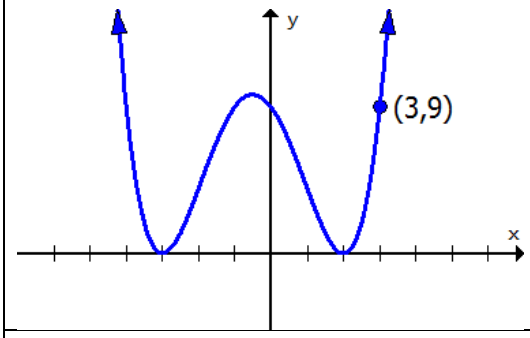
2. Write an equation:

Y = _____



AA6-3 I can write an exact equation of a polynomial in factored form.

3.



AA6-4 I can rewrite a polynomial from factored form to standard form

4. y = (x – 1)(3x² + 5x – 7)

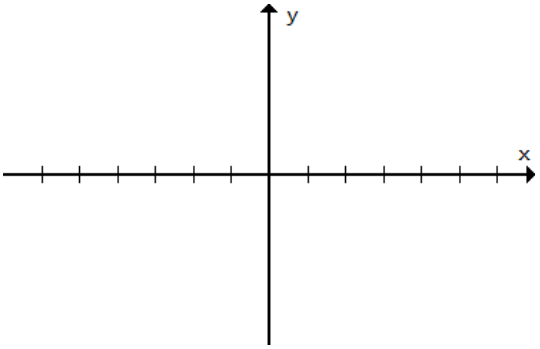
AA6-5 I can factor a polynomial given a root. Write in fully factored form.

5. $f(x) = 2x^3 + 3x^2 - 65x + 84$ with a root at (4,0)

B-Level (2.5 points each)

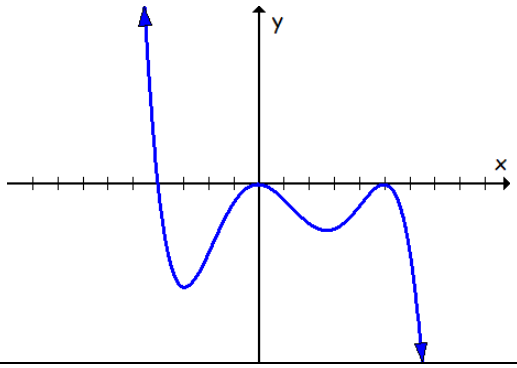
6. Sketch the polynomial:

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



7. Write an equation:

Y = _____



8. Write the equation of a 5^{th} degree polynomial with crossing roots at (-3,0) and (5,0) and another root at (2,0), through the point (3,7).

AA6-6 I can use the remainder theorem.

9. Is x = 2 a root of $y = 8x^4+10x^3-35x^2+20x-3$? Write the equation in partially factored form.

A-level (5 points)

10. Factor and graph $P(x) = -3x^3 + 17.5x^2 - 10.5x - 10$