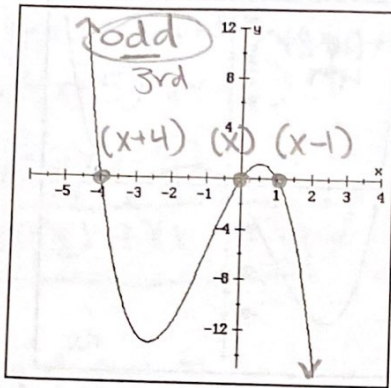
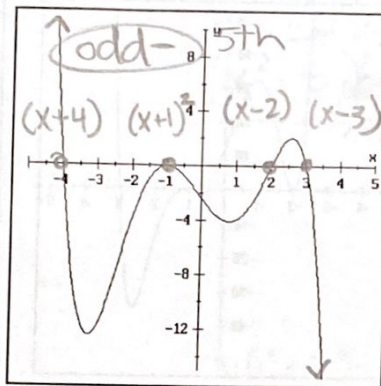


# Factoring a Polynomial by Using Its Graph I

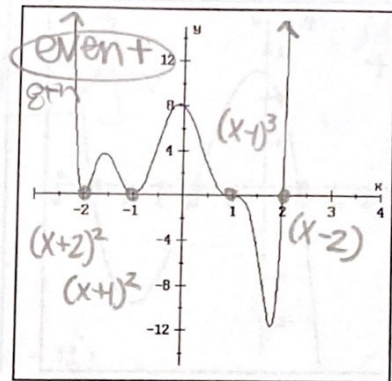
Give a possible factorization of the following polynomials. Do NOT multiply out the factors! Be sure to use your knowledge of the Leading Coefficient Test and Repeated Zeros.



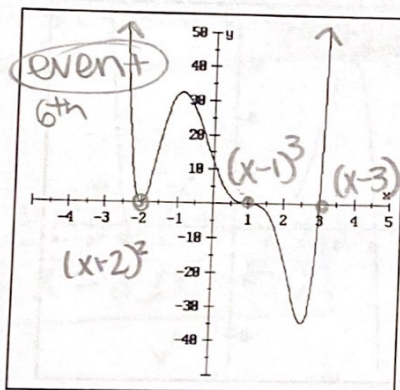
1)  $y = -x(x+4)(x-1)$



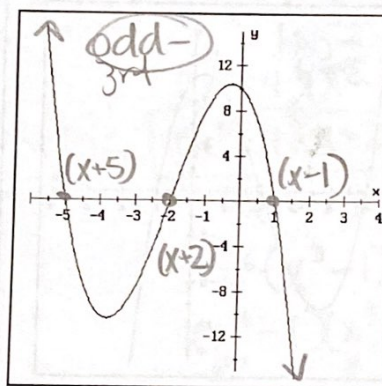
2)  $y = -(x+4)(x+1)^2(x-2)(x-3)$



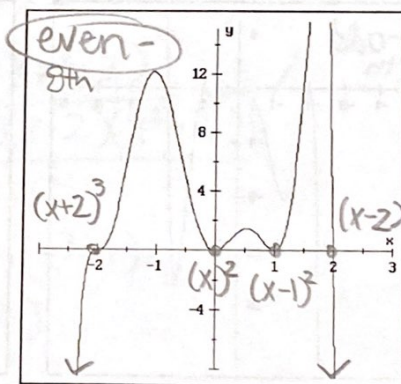
3)  $y = (x+2)^2(x+1)^2(x-1)^2(x-2)$



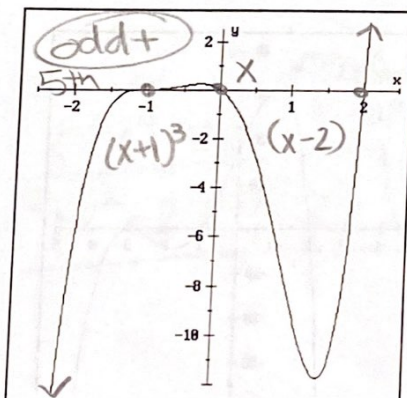
4)  $y = (x+2)^2(x-1)^3(x-3)$



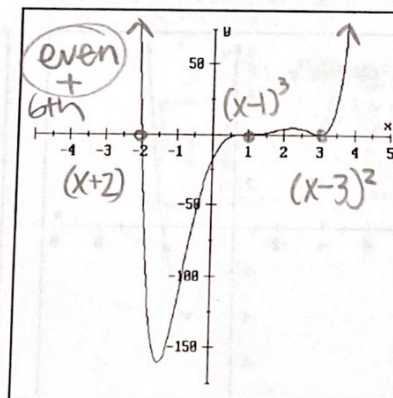
5)  $y = -(x+5)(x+2)(x-1)$



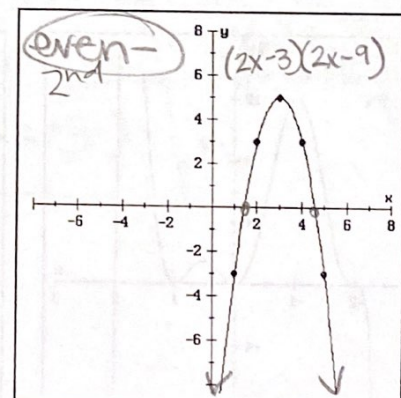
6)  $y = -x^2(x+2)^3(x-1)^2(x-2)$



7)  $y = x(x+1)^3(x-2)$



8)  $y = (x+2)(x-1)^3(x-3)^2$



9)  $y = -(2x-3)(2x-9)$   
 $y = -(x-1.5)(x-4.5)$