

WIGGLE → EXP. 3

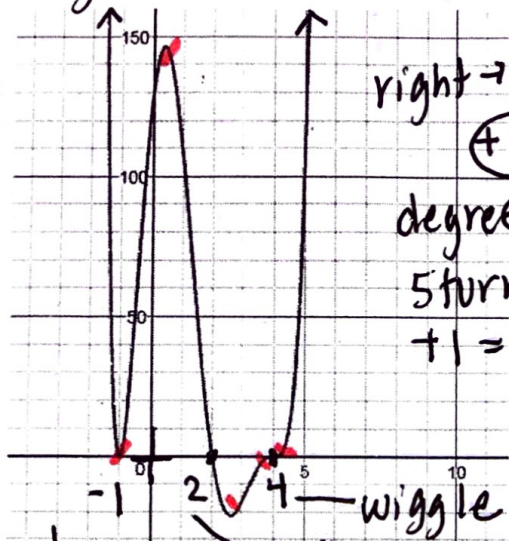
BOUNCE → EXP. = 2 ↕

CROSS → EXP. = 1 ↗

Math 3 Unit 2: Writing Equations for Polynomial Functions from Graphs

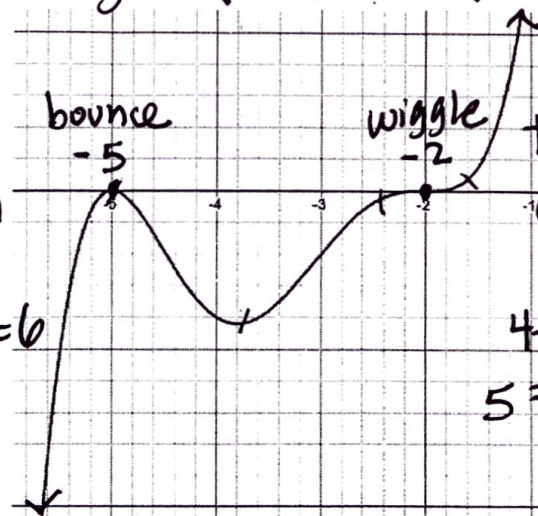
Write an equation for each of the following graphs. Be careful to consider the multiplicity of each root.

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



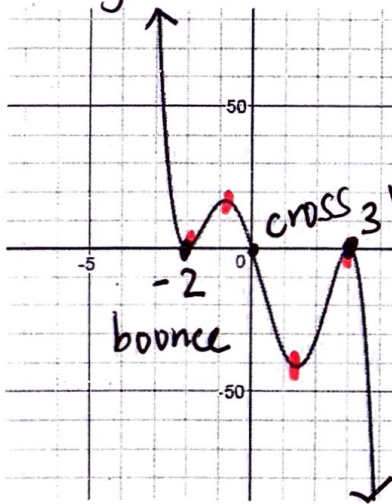
right → up
 (+ LC)
 degree = even
 5 turns →
 +1 = degree = 6

2. EQ $y = + (x+5)^2 (x+2)^3$



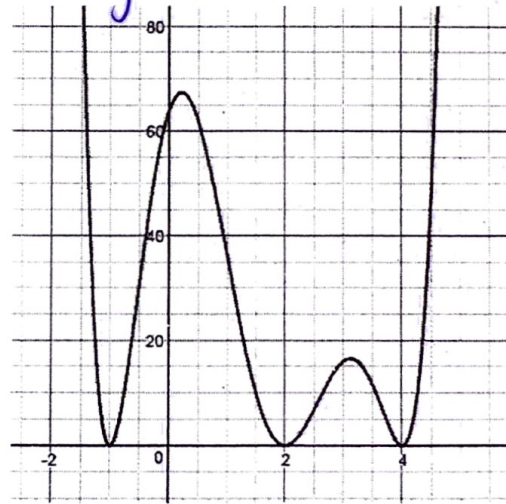
bounce
 -5
 wiggle
 -2
 right up
 + LC
 degree
 odd
 4 turns →
 5 = degree

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

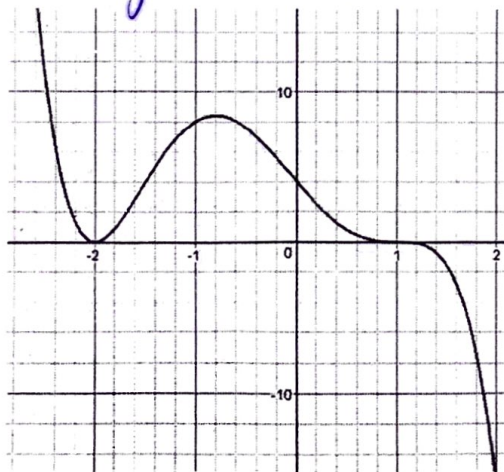


- LC
 down on
 right
 degree = 5
 4 turns
 +1
 5

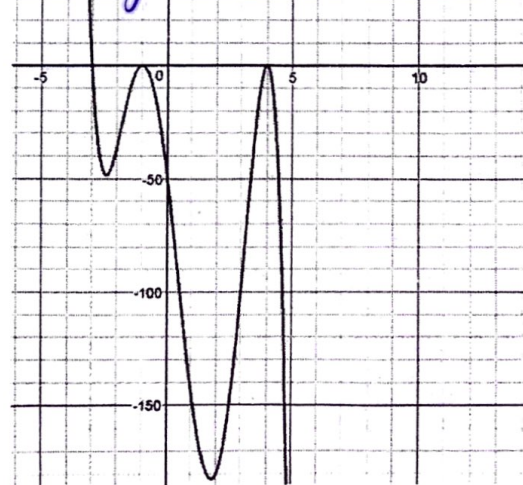
4. EQ $y = (x+1)^2 (x-2)^2 (x-4)^2$



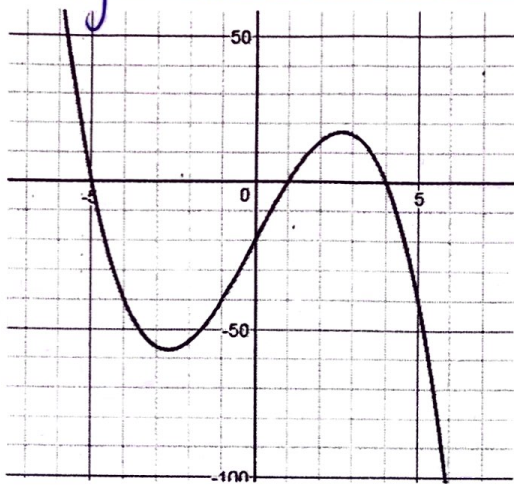
5. EQ $y = - (x+2)^2 (x-1)^3$



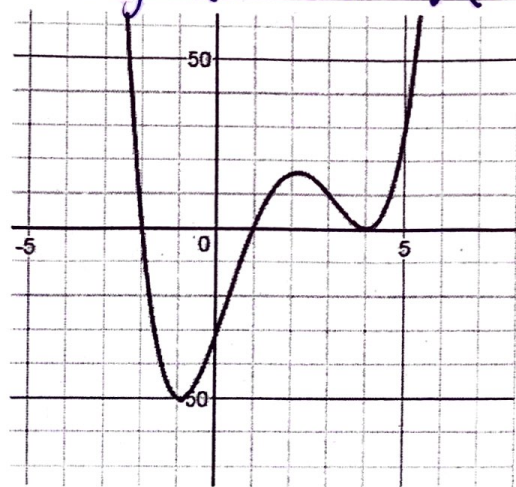
6. EQ $y = - (x+3)(x+1)^2 (x-4)^2$



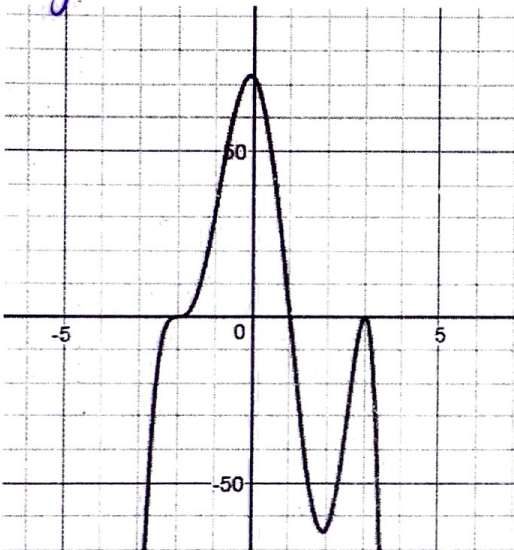
7. EQ $y = -(x+5)(x-1)(x-4)$



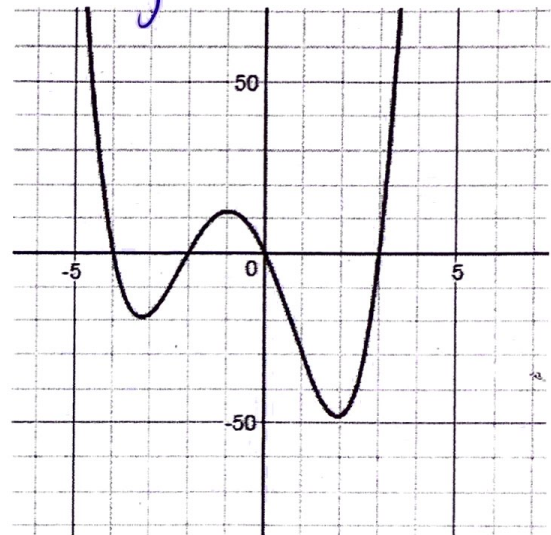
8. EQ $y = (x+2)(x-1)(x-4)^2$



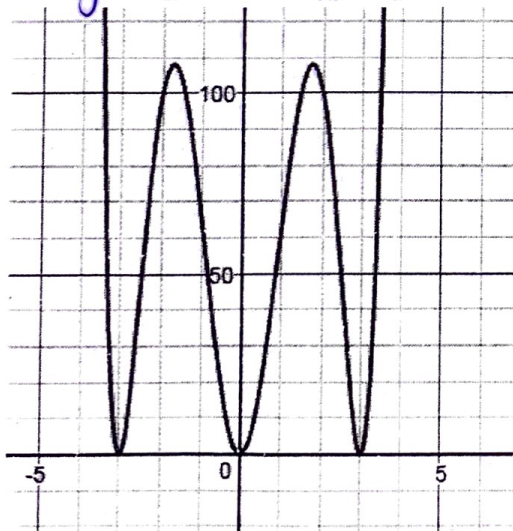
9. EQ $y = -(x+2)^3(x-1)(x-3)^2$



10. EQ $y = (x+4)(x+2)(x)(x-3)$



11. EQ $y = (x+3)^2(x^2)(x-3)^2$



12. EQ $y = (x+4)(x-2)(x-6)$

