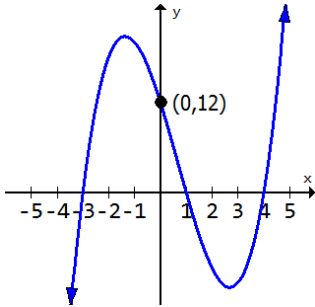


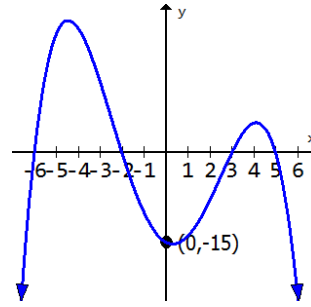
## Finding an exact equation of polynomials

## Practice: C-Level:

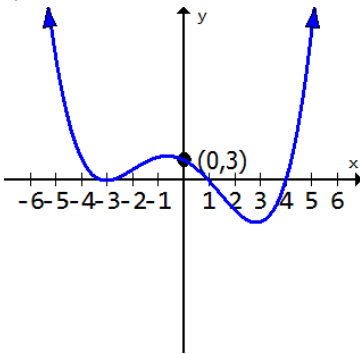
1.



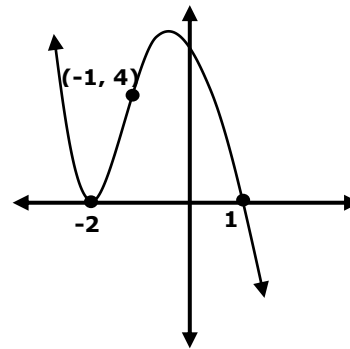
2.



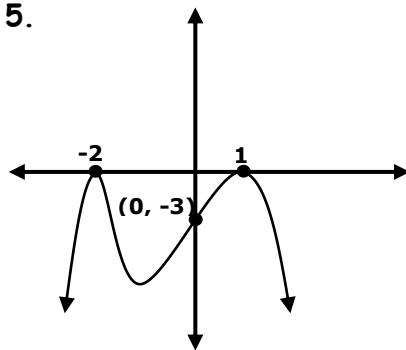
3.



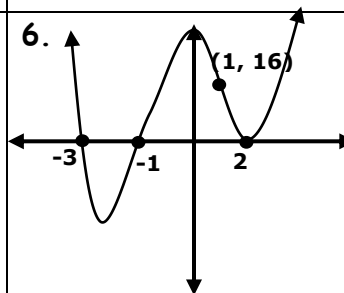
4.



5.

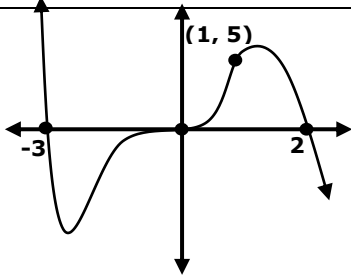


6.



**B-Level**

7.



8. A polynomial with simple roots at  $-3$  and  $0$ , double (multiplicity 2) root at  $2$ , and passes through the point  $(3, 9)$ .

9. A 3<sup>rd</sup> degree polynomial with single roots at  $-2$ ,  $1$ , and  $3$  passing through the point  $(2, -12)$

10. A 4<sup>th</sup> degree polynomial with single roots at  $-3$  and  $4$  and a bouncing root at  $1$ , passing through the point  $(0, 18)$ .

11. Find **two** exact equations of polynomials with a bouncing root at  $(-1, 0)$ , a crossing root at  $(4, 0)$  and pass through the point  $(-2, -18)$ .

**Looking ahead:**

Rewrite the polynomial in standard form:

$$Y = 3(x + 4)^2(x - 7)$$