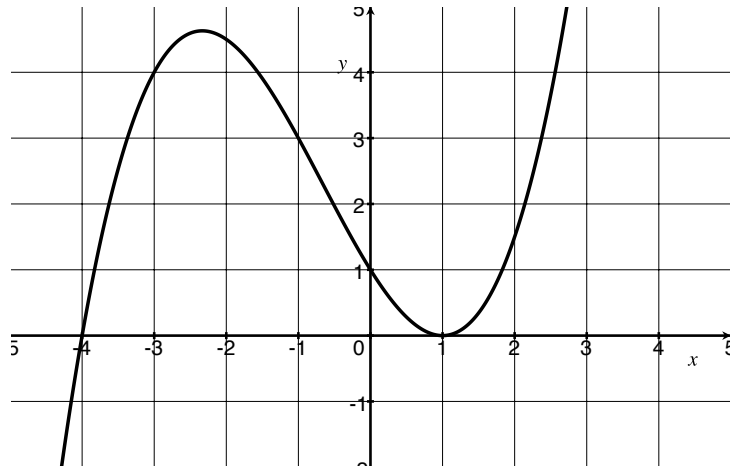


Quiz 2

Show *all* your work. No credit is given without reasonable supporting work. There are *two* sides to this quiz.

1. [3] (Poly2Wks #2) Let f be the graph below and to the right. Given that the graph is of a degree three polynomial, find the algebraic rule for the function.



2. [2] (§2.2 #96) Write a polynomial p that satisfies the following criteria:
 - as $x \rightarrow \infty$, then $y \rightarrow -\infty$
 - -2 , 1 , and 3 are roots.

Note: there is more than one right answer!

3. (WebHW13 #6) The area of a rectangle is $5x^4 - 15x^3 + 22x^2 - 6x + 8$ cm². It's length is $x^2 - 3x + 4$ cm.

(a) [2] If the length is 4cm what are the possible areas of the rectangle?

(b) [3] Find the rectangle's width.