

Quiz 3

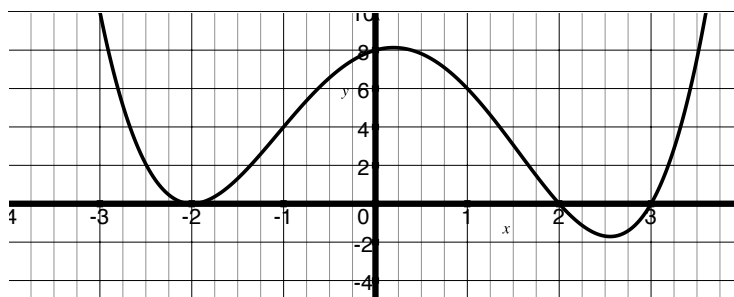
Show *all* your work. Reasonable supporting work must be shown to earn credit. There are *two* sides to this quiz.

- (§2.3 #90) The volume of a rectangular solid is $x^4 + 3x^3 + 5x^2 - x + 2$ cubic inches. Its length and width are $(x + 3)$ and $(x + 1)$ inches, respectively.

(a) [1] What is the volume when the width is 3 inches?

(b) [2] Find its height (as a function of x).

- [3] (Polynomial Activity #4) Given the graph below is of a polynomial of degree four, find the algebraic rule/write an equation for the graph.



3. [1] (§3.2 #29) Write the following logarithmic statement in exponential form.

$$3 \log_8(2) = 1$$

4. [3] (WebHW7 #8) The graph below is of an exponential function a^b that has been vertically shifted. Find the algebraic rule/write an equation for the graph.

