Quiz 1

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

1. [2] Define a function as you would to a 12 year old. Consider using examples to help clarify ideas.
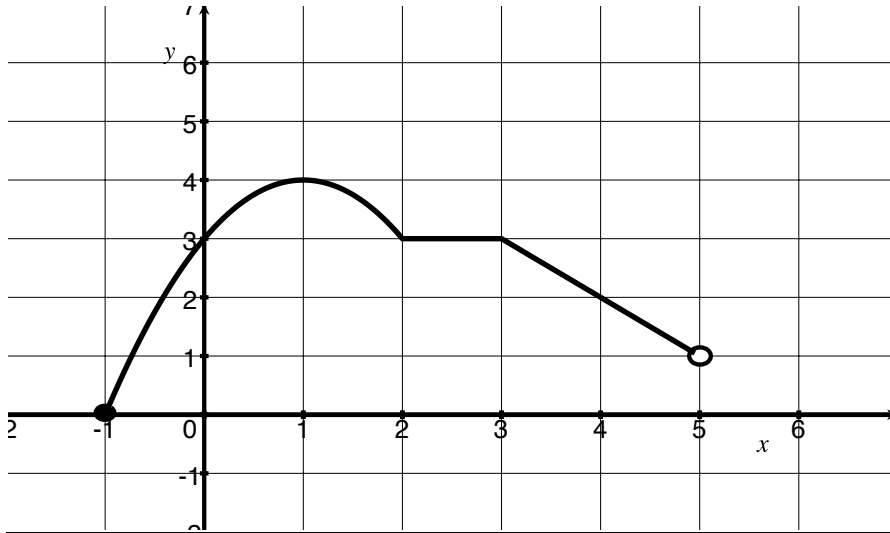
2. Let $f(x) = x^2\sqrt{9 - 4x}$.

   (a) [1] (WebHW1 #5) Find $f(3 + h)$.

   (b) [1] (§1.1 #30) Is the point $(-1, -\sqrt{13})$ on the graph of f? Why or why not?

   (c) [2] (WebHW1 #9) (Use the domain convention to) Find the domain of f.

3. Let g be the piecewise defined graph shown below.

(a) [1] (§1.3 #14) Find $g(4)$

(b) [1] *Estimate* x such that $g(x) = 2$.

(c) [1] (§1.1 #48) Identify the x intercept(s).

(d) [1] What is the range of g?