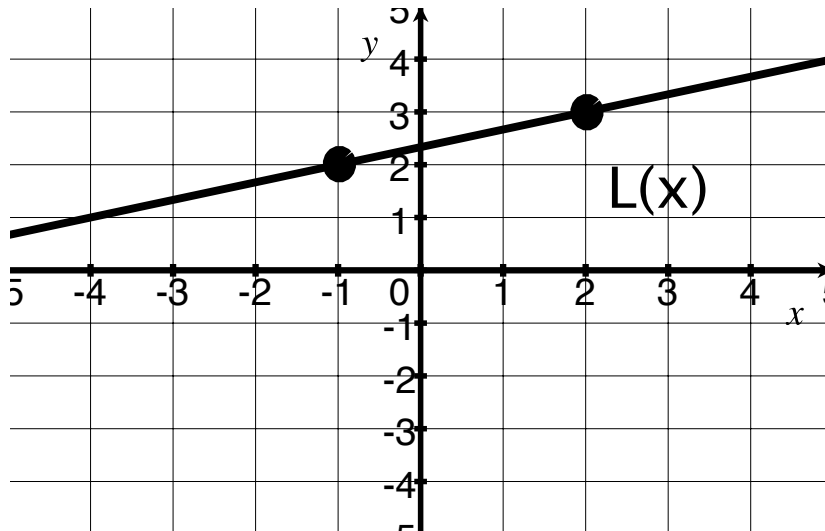# Quiz 2

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

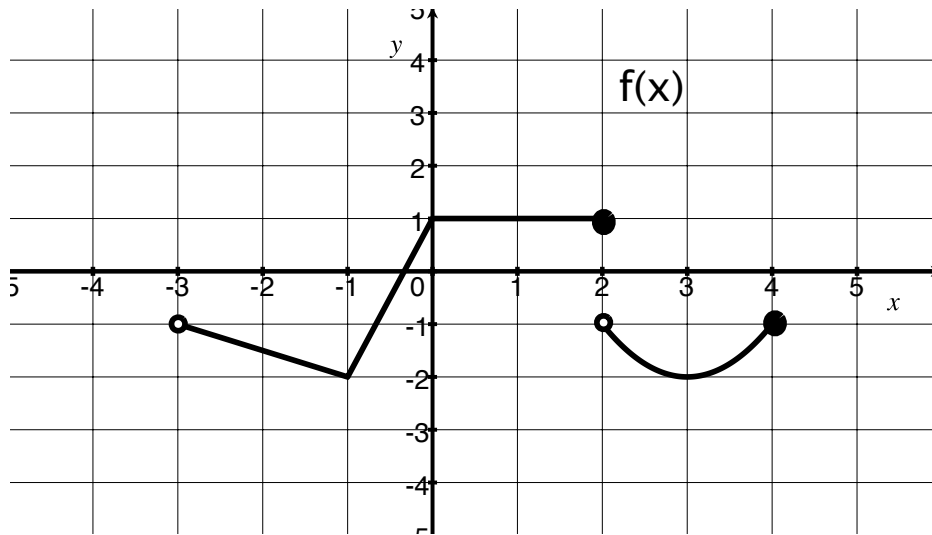1. [2] (WebHW2 #11) Find an equation for the line L shown below.

2. Let $d(x) = \dfrac{x}{\sqrt{x+3}}$ and $j(x) = 2x + 1$.

   (a) [1] (§1.6 #20b) Find the rule of $d - j$.

   (b) [1] (§1.6 #28) Evaluate $(d \circ j)(3)$

   (c) [1] Find $d \circ j$.

3. Let f be the piecewise defined graph shown below and let the function g be defined by
$g(x) = \frac{1}{2}f(x+2)$

(a) [2] (WebHW2 #14) Find the average rate of change of the function f as x changes from -1 to 2.

(b) [3] (Transformation Wks #5) Sketch the graph of g.
Note: partial credit can be earned if you state the graph transformations.