

# Quiz 2

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

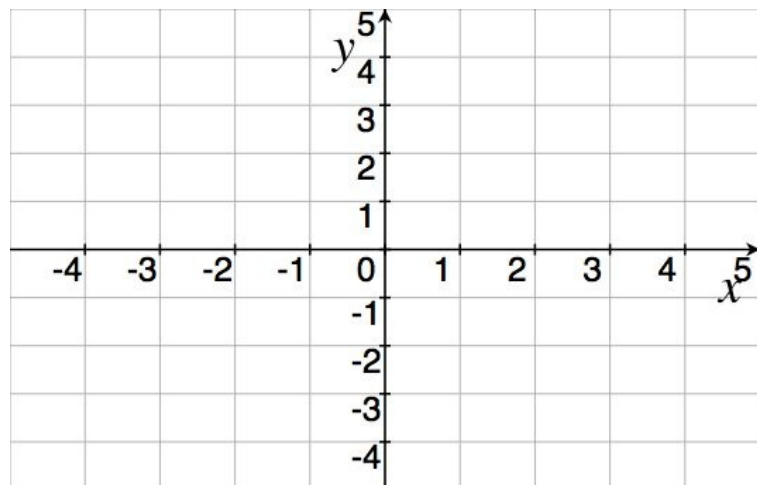
1. Let  $f(x) = \frac{3}{\sqrt{x-4}}$ .

(a) [2] (WebHW3 #15) Find the domain of  $f$ .

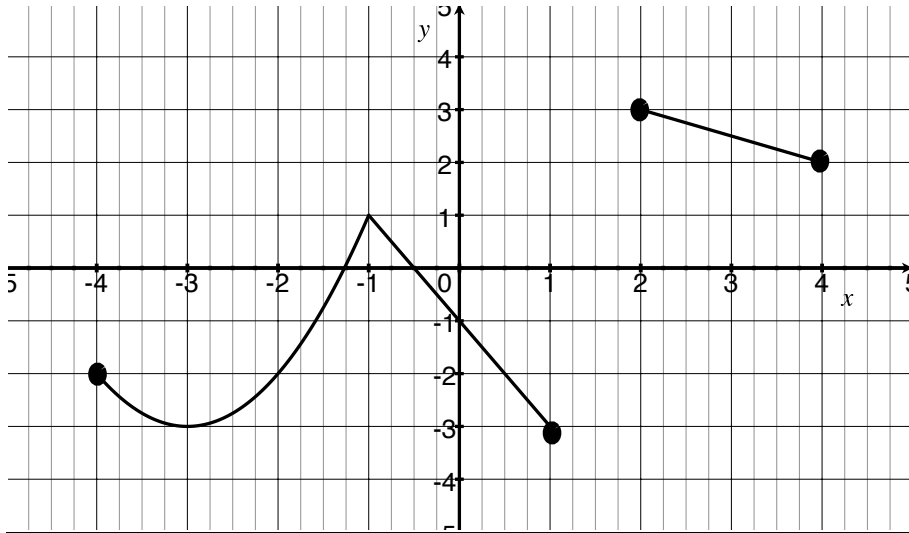
(b) [1] (§1.3 #32) Find  $f(x+8)$ .

2. [2] (WebHW4 #4)

$$\text{Graph } l(x) = \begin{cases} \frac{1}{2}x - 1 & \text{if } -4 \leq x \leq 2 \\ 0 & \text{if } 2 < x \leq 3 \end{cases}$$



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



(a) [1] (§1.3 #56) Estimate  $g(1)$

(b) [2] (TransformationWks #5) Find the range of  $g$ .

(c) [2] (TransformationWks #5) Let  $m(x) = g(x + 1) + 2$ . Graph  $m(x)$  on the set of axes.