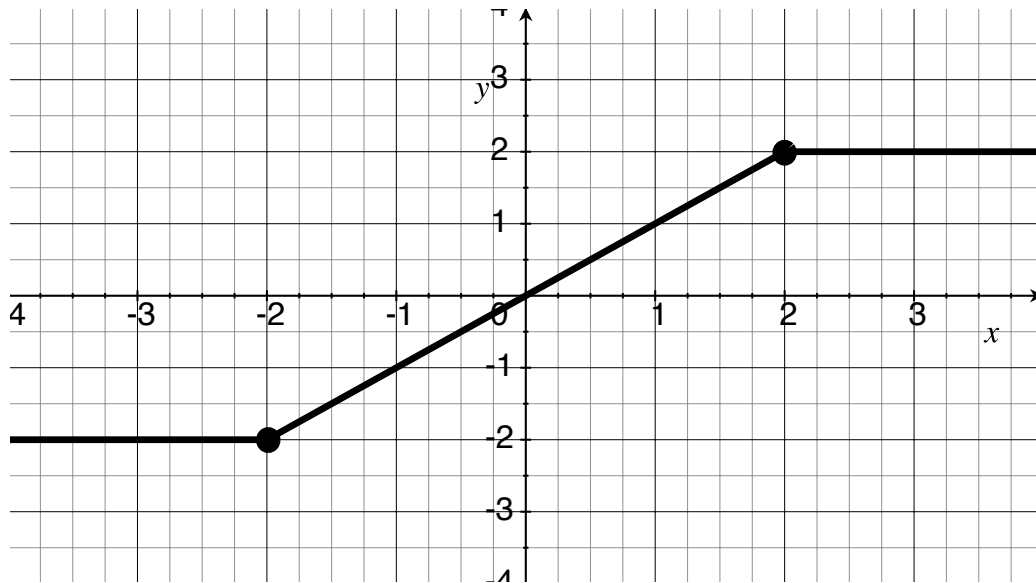


Quiz 1E

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

1. (§2.2 #53) The graph of the piecewise defined function f is shown below:



(a) [1] Find $f(-3.5)$.

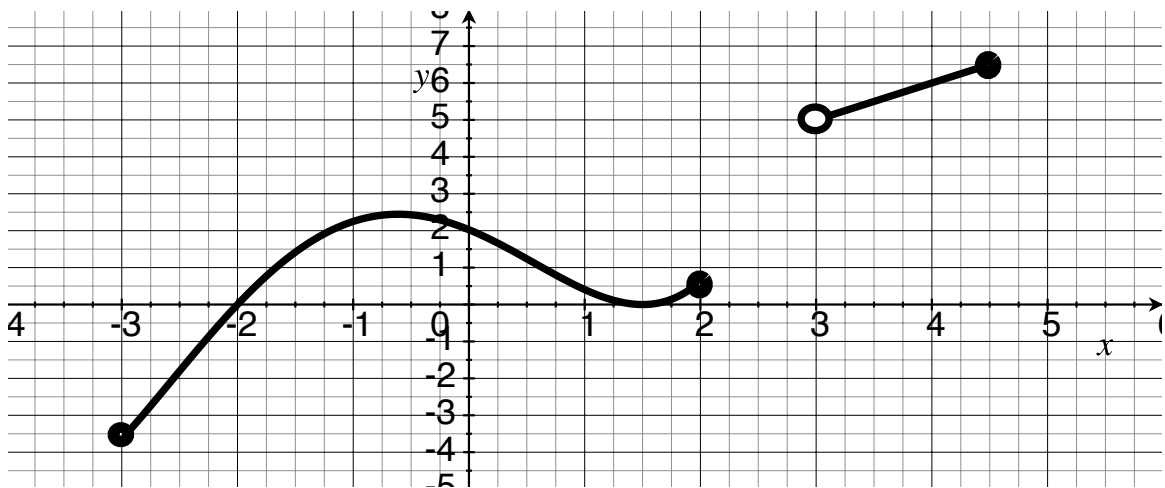
(b) [1] What is the domain of f ?

(c) [3] Find a formula for the function f in the indicated form:

$$f(x) = \begin{cases} & \text{if } x < -2 \\ & \text{if } -2 \leq x \leq 2 \\ & \text{if } 2 < x \end{cases}$$

2. (9/28 Worksheet) [2] Given that $g(x) = \frac{1}{x^2 - x}$, find $g(a + h)$.

3. Use the the graph of C shown below to answer the following questions:



(a) (WebHW1 #6) [1] Estimate the number x in the domain of C so that $C(x)$ is as large as possible.

(b) (WebHW1 #7)[2] What is the range of C ?