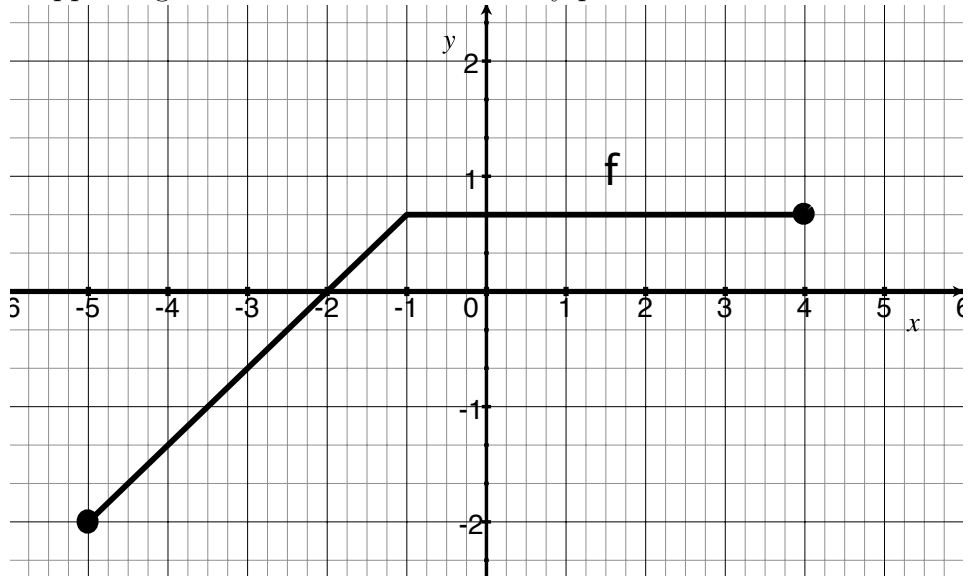


# Quiz 1

Show *all* your work. Reasonable supporting work must be shown for any partial credit.

1. Consider the graph of  $f$  shown on the right.



- (a) [2] Is  $f$  a function? Why or why not?
- (b) [1] Is  $(0, -2)$  on the graph of  $f$ ?
- (c) [1] Estimate  $f(3)$ .
- (d) [2] What is the Domain of  $f$ ?

2. The height (in feet) of an open toy box that is twice as long as it is wide is given by  $\frac{13.5 - 2x^2}{6x}$ , where  $x$  is the width of the box.

- (a) [1] Find the length of the box when the width is 1.5 feet.
- (b) [2] Find the height of the box when the width is 1.5 feet.
- (c) [1] Find the volume of the box when the width is 1.5 feet.