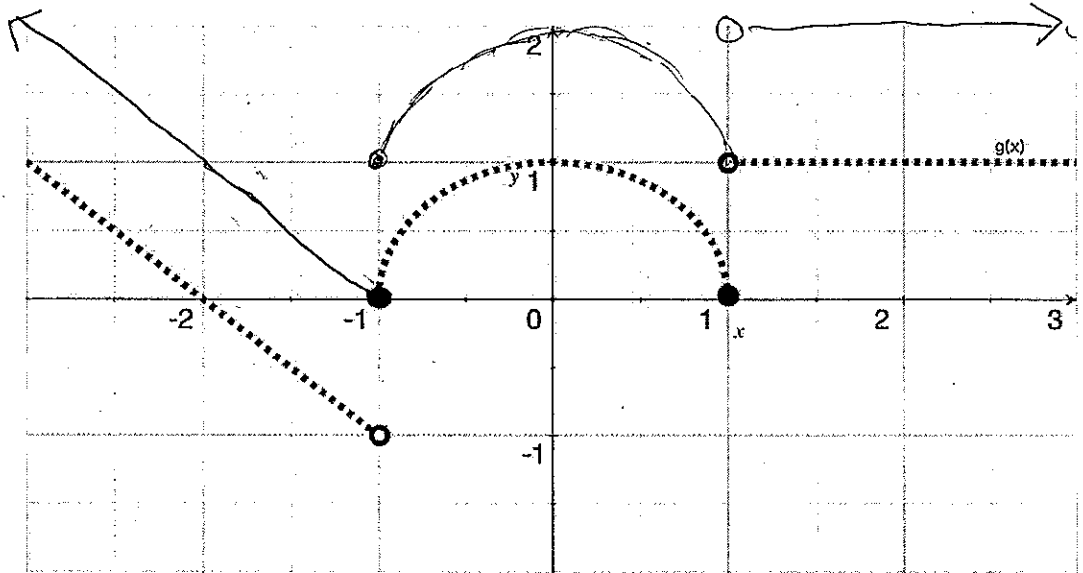


Quiz 2

Key

Show *all* your work algebraically for each and simplify. No credit is given without supporting work. There are *two* sides to this quiz.

1. Let the following be the graph of g .



- (a) [2] Is g a function? Why or why not?

yes (+1) b/c the graph passes the vertical line test (+1)

- (b) [1] What is $g(2)$?

1 (+1)

- (c) [2] What is the range of g ?

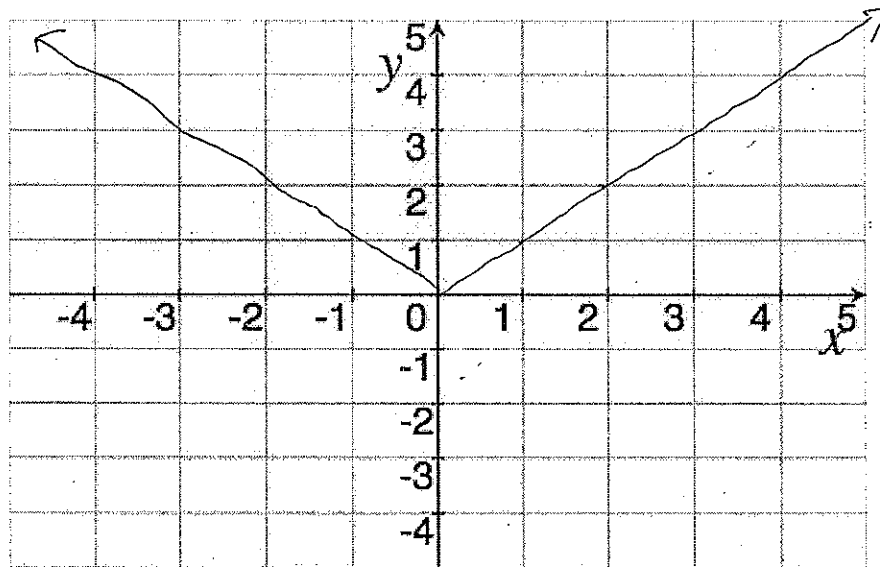
sense (+1) right (+1)
 $(-1, \infty)$ or $(-1, 1]$
 if you assume an arrow on the left & right of graph.

- (d) [1] If $m(x) = g(x) + 1$, graph m .

2. Given that the function f is defined by:

$$f(x) = \begin{cases} x & 0 \leq x \\ -x & x \leq 0 \end{cases}$$

(a) [2] Graph f on the axes below.



(b) [2] Let $h(x) = x + 2$. Find $(h \circ f)(-3)$.

composition (11)

$$\begin{aligned} (h \circ f)(-3) &= h(f(-3)) = h(-(-3)) \\ &= h(3) \\ &= 3 + 2 = 5 \end{aligned}$$

sign (11)