

Math 105 Quiz 1

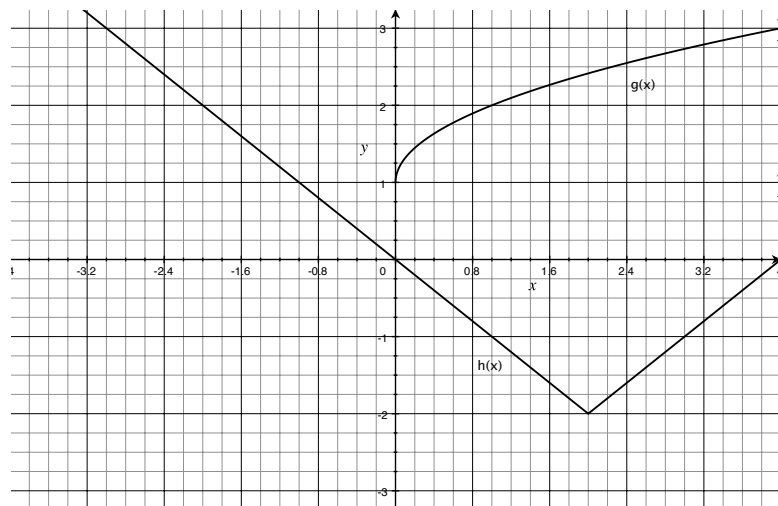
§1.1-§1.3

Name: KEY

Show all work for credit. No calculators are allowed on this quiz.

1. Sketch the following functions on the same graph. Label them.

$$g(x) = (\sqrt{x}) + 1 \text{ and } h(x) = |x - 2| - 2$$



Find the domain and range of $g(x) = (\sqrt{x}) + 1$.

Domain: $[0, \infty)$

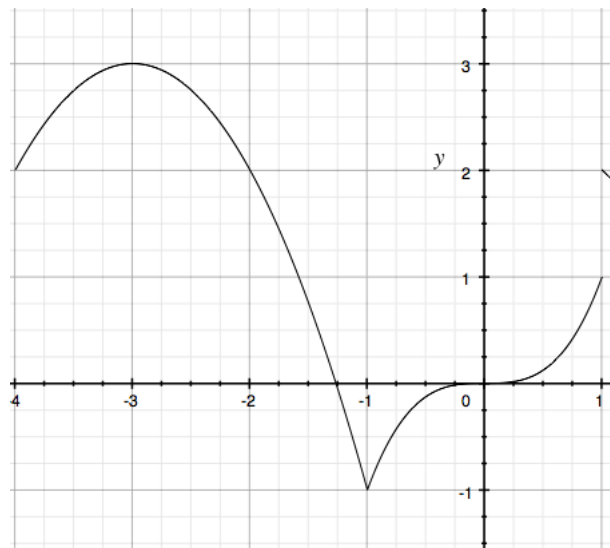
Range: $[1, \infty)$

Find the domain and range of $h(x) = |x - 2| - 2$.

Domain: $(-\infty, \infty)$

Range: $[-2, \infty)$

2. Consider the following graph from $[-4, 1]$. Recall, “Where” is asking for x -intervals.



- (a) Where is the function increasing?

$(-4, -3) \cup (-1, 1)$

- (b) Where is the function decreasing?

$(-3, -1)$

- (c) Where is the function concave down?

$(-4, -1) \cup (-1, 0)$

- (d) Where does the function have negative output values?

$(-1.25, 0)$

3. Is the function from number 2. even, odd, or periodic on the interval from $[-1, 1]$?

Odd