

WS#3 Solutions

Math 109 College Algebra
Lecturer: Calvin Hotchkiss
Group Worksheet 3

Fall 2024
TA: Samir Donmazov

Indicate which group member is taking on which of the following four roles. You will switch roles on the next recitation day.

- Reader: Reads the problem to the group and makes sure everyone understands.
- Spokesperson: presents the work and asks questions to the TA.
- Recorder: writes everyone's names and the group's work on the worksheet.
- Timekeeper: keeps track of time.

Reader's name: _____

Spokesperson's name: _____

Recorder's name: _____

Timekeeper's name: _____

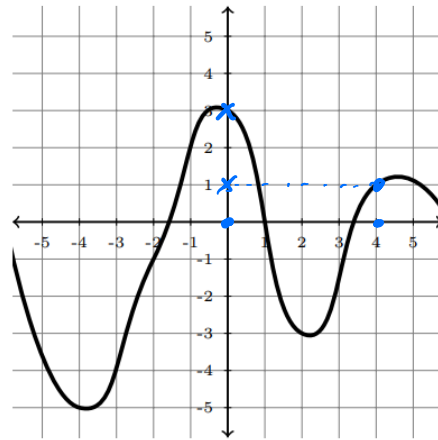
(1) Suppose $f(x)$ is given by the graph to the right.

(a) What is $f(4)$?

$$f(4) = 1$$

(b) Solve $f(x) = 3$.

$$x = 0 \text{ so that } f(0) = 3$$



(2) Let $g(x)$ be defined by $g(x) = 13$.

(a) What kind of function is this?

$g(x)$ is a constant function because the output is always the same "13" for any input "x"

(b) Evaluate $g(2) = 13$

(c) Evaluate $g(-5) = 13$

(d) Solve $g(x) = 7$

There is no such "x" such that $g(x) = 7$ b/c $g(x) = 13$ for all x.

(3) Let $h(x)$ be defined by $h(x) = \frac{2x-1}{x+1}$. $\Rightarrow h(-2) = \frac{2 \cdot (-2) - 1}{-2 + 1} = \frac{-5}{-1} = 5$

(a) Evaluate $h(-2)$.

(4) Let $j(x)$ be defined by the table to the right.

(a) Evaluate $j(2)$.

$$j(2) = 5$$

(b) Solve $j(x) = 2$.

x	j(x)
-1	8
2	5
5	-1
8	2

$$x = 8 \text{ so that } j(8) = 2.$$