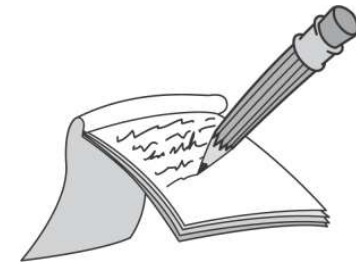


PLEASE WRITE
SECTION NUMBER AND PROBLEM NUMBERS
AT THE TOP OF EACH HOMEWORK
ASSIGNMENT!!

Also include:



first and last name
class period

2.1 #55-65odd CHECK ANSWERS!!

State the domain. Show work and state answer using an inequality AND interval notation for your final answer!

$$55. \quad x \neq 3 \quad \rightarrow \quad (-\infty, 3) \cup (3, \infty)$$

$$57. \quad x \neq \pm 1 \quad \rightarrow \quad (-\infty, -1) \cup (-1, 1) \cup (1, \infty)$$

$$59. \quad t \geq -1 \quad \rightarrow \quad [-1, \infty)$$

2.1 #55-65odd CHECK ANSWERS!!

State the domain. Show work and use interval notation for your final answer !

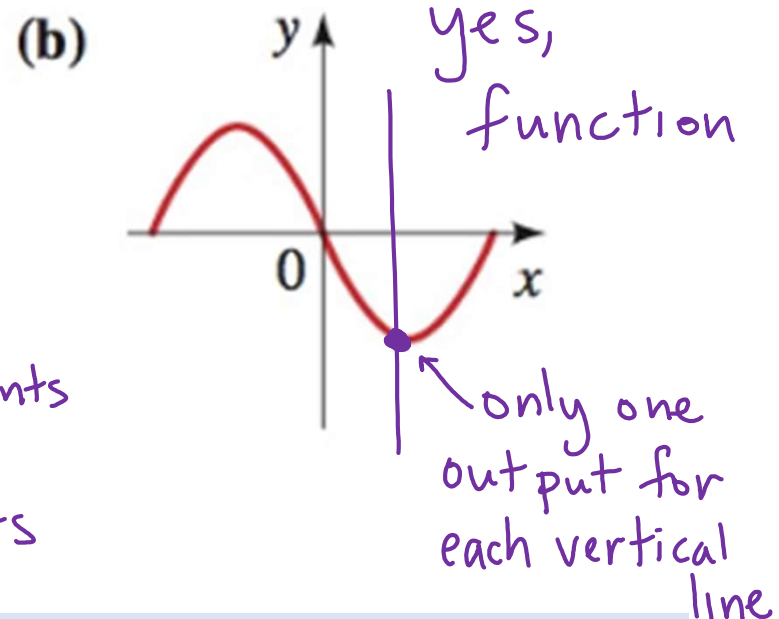
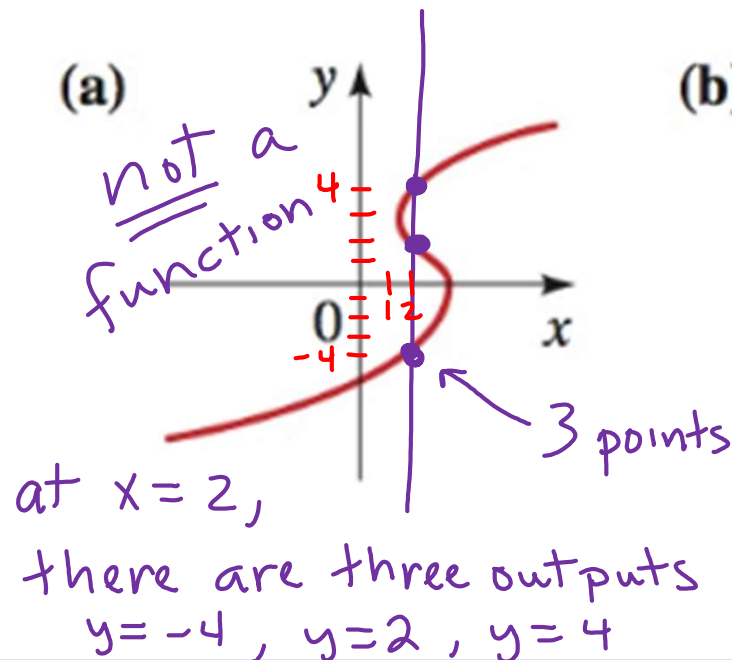
61. $t = \text{all real numbers} \rightarrow (-\infty, \infty)$

63. $x \leq \frac{1}{2} \rightarrow \left(-\infty, \frac{1}{2}\right]$

65. $x \geq -2 \text{ and } x \neq 3 \rightarrow [-2, 3) \cup (3, \infty)$

2.2 Notes: vertical line test

Vertical Line Test Use the Vertical Line Test to determine whether the curve is a graph of a function of x .



**Function: each domain value (input) has
only one range value (output)**

2.2 Notes: graphing piecewise functions (example)

$$y=2 \quad \begin{array}{c|c} x & y \\ \hline -5 & 2 \\ -6 & 2 \end{array}$$

$$y=x+4 \quad \begin{array}{c|c} x & y \\ \hline -5 & -1 \\ 0 & 4 \end{array}$$

Graph:

function
interval
(domain)

$$f(x) = \begin{cases} y=2, & x \leq -5 \\ x+4, & -5 < x \leq 0 \end{cases}$$

$y = \frac{-1}{2}x$, if $x > 0$

$$\begin{array}{c|c} x & y \\ \hline 0 & 0 \\ 1 & -\frac{1}{2} \end{array}$$

