

Name:

1. Let

$$f(x) = \begin{cases} 1 & \text{if } x > 1, \\ 2 & \text{if } x < 1 \end{cases}$$

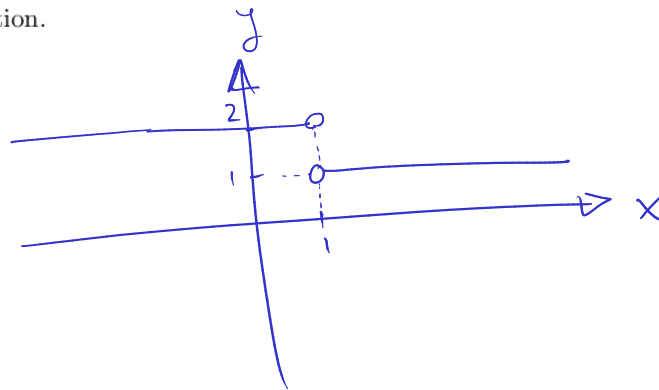
- Find $f(0)$, $f(1)$, $f(2)$.

$$0 < 1 \rightarrow f(0) = 2$$

$f(1)$: not defined

$$2 > 1 \rightarrow f(2) = 1$$

- Sketch the graph of the function.



- Find the domain and the range of f .

Function is defined everywhere except at 1, $D_f = (-\infty, 1) \cup (1, \infty)$

The output is either 1 or 2, so $R_f = \{1, 2\}$

↑
set of two elements 1 & 2.