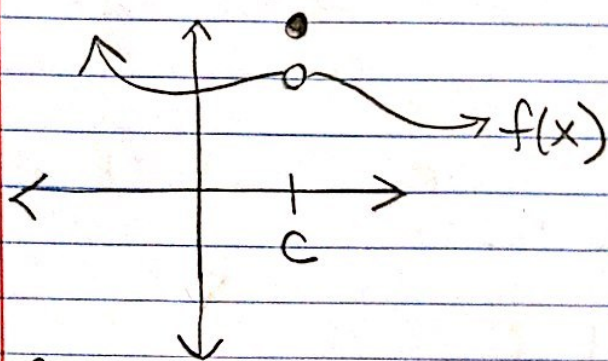


WU \rightarrow graph interrupted!
(* removable/non-removable)

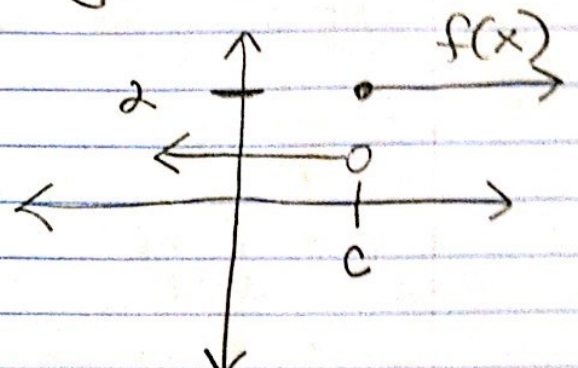
1.4 Continuity and One-Sided Limits

* Continuous - a graph is uninterrupted
(no holes, breaks, asy, etc)



$$\lim_{x \rightarrow c} f(x) = L$$

BUT
 $f(c) \neq L$



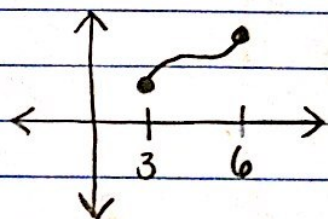
$$\lim_{x \rightarrow c} f(x) = \text{DNE}$$

$$f(c) = 2$$

* Continuous Function:

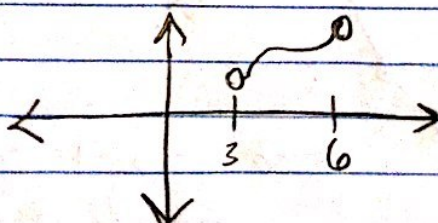
- 1) $f(c)$ is defined
- 2) $\lim_{x \rightarrow c} f(x)$ exists
- 3) $\lim_{x \rightarrow c} f(x) = f(c)$

* Continuous on $\begin{matrix} \text{Closed} \\ \downarrow \\ \text{Open} \end{matrix}$ Interval:



$$[3, 6]$$

$f(3)$ and $f(6)$
must be defined



$$(3, 6)$$

$f(3)$ and $f(6)$
may not be
defined