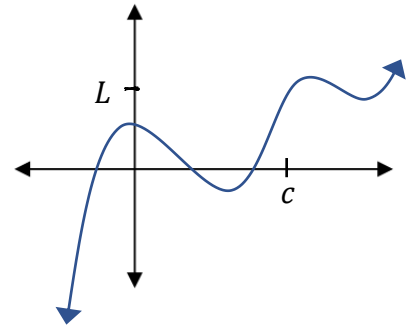


Limits Graphically

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

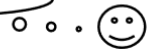
means: as x approaches the x -value of c ,
the function, $f(x)$, approaches the y -value L .



In order for $\lim_{x \rightarrow c} f(x)$ to exist,

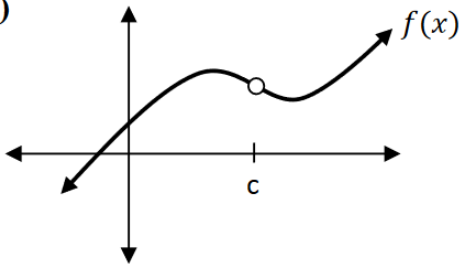
$$\lim_{x \rightarrow c^-} f(x) \text{ has to equal } \lim_{x \rightarrow c^+} f(x)$$

"limit from the left = limit from the right"

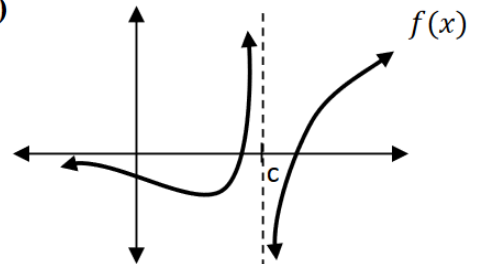


Examples: Does $\lim_{x \rightarrow c} f(x)$ exist? Explain why or why not.

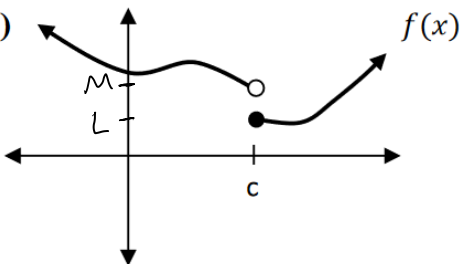
1)



2)



3)



4)

