

NOTE: FOR A LIMIT TO EXIST, IT HAS TO AGREE APPROACHING FROM THE LEFT AND APPROACHING FROM THE RIGHT

1.  $\lim_{x \rightarrow 2} (x^2 - 3x - 2) = \textcircled{-4}$

X	-0.1	-0.01	-0.001	2	+0.001	+0.01	+0.1
	1.9	1.99	1.999	2	2.001	2.01	2.1
f(x)	-4.09	-4.01	-4.001	?	-3.999	-3.99	-3.89

$$\begin{aligned} & \frac{1.9}{x^2 - 3x - 2} \\ & (1.9)^2 - 3(1.9) - 2 \\ & = -4.09 \end{aligned}$$

2.  $\lim_{x \rightarrow 5} \frac{(x^2 - 25)}{(x - 5)} = \textcircled{10}$

X	4.9	4.99	4.999	5	5.001	5.01	5.1
f(x)	9.9	9.99	9.999	?	10.001	10.01	10.1

3.  $\lim_{x \rightarrow 0} \frac{\tan x}{x} = \textcircled{1}$

X	-0.1	-0.01	-0.001	0	+0.001	+0.01	+0.1
	-0.1	-0.01	-0.001	0	0.001	0.01	0.1
f(x)	1.0033	1	1	?	1	1	1.0033

4.  $\lim_{x \rightarrow 2} \frac{(x^2 - 5x + 6)}{(x - 2)} = \textcircled{-1}$

X	-0.1	-0.01	-0.001	2	+0.001	+0.01	+0.1
	1.9	1.99	1.999	2	2.001	2.01	2.1
f(x)	-1.1	-1.01	-1.001	?	-0.999	-0.99	-0.9