

## MA 16010 Quiz 2 (Lessons 2-3)

Write your name, section number (399 for 8:30, 418 for 9:30), and quiz number on the top of your quiz, **front and back**.

You may use a one-line calculator.

- Fill out the table values, with values of  $f(x)$  rounded to 3 decimal places, and determine the indicated one-sided limit:

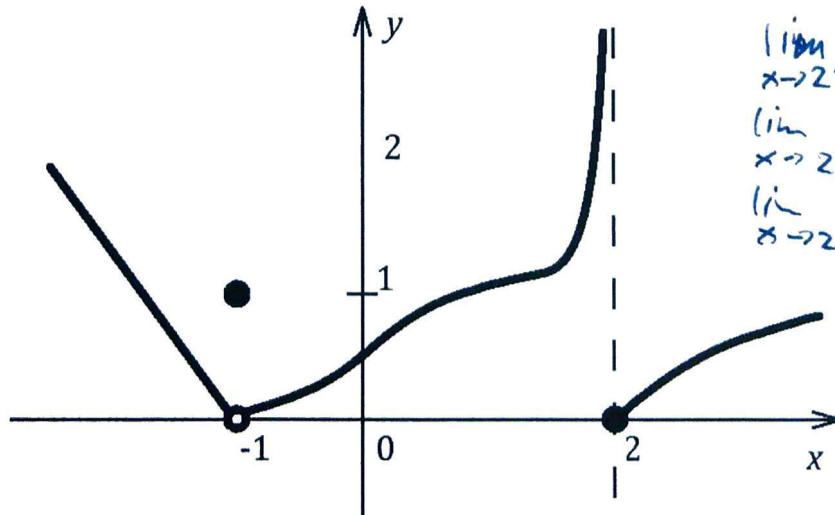
$$f(x) = \frac{3x + 4}{x^2 + 3x - 10}$$

x	2	2.0001	2.001	2.01	2.1
f(x)	—	14285.939	1428.796	143.081	14.507

$$\lim_{x \rightarrow 2^+} \frac{3x + 4}{x^2 + 3x - 10} = \infty$$

- Find  $\lim_{x \rightarrow c^-} f(x)$ ,  $\lim_{x \rightarrow c^+} f(x)$ ,  $\lim_{x \rightarrow c} f(x)$  and  $f(c)$ , or write "does not exist", for  $f(x)$  given by graph below, and  $c = -1$ ,  $c = 2$ .

$$\begin{aligned} \lim_{x \rightarrow -1^-} f(x) &= 0 \\ \lim_{x \rightarrow -1^+} f(x) &= 0 \\ \lim_{x \rightarrow -1} f(x) &= 0 \\ f(-1) &= 1 \end{aligned}$$



$$\begin{aligned} \lim_{x \rightarrow 2^-} f(x) &= \infty \\ \lim_{x \rightarrow 2^+} f(x) &= 0 \\ \lim_{x \rightarrow 2} f(x) & \text{ DNE} \\ f(2) &= 0 \end{aligned}$$