



Quiz # 1
Math 101-Section 01 Calculus I
29 September 2017, Friday
Instructor: Ali Sinan Sertöz
Solution Key



Bilkent University

Your Name:

Your Student ID:

Q-1) Let $f(x) = \begin{cases} \frac{1}{x} & x < -1 \\ x & -1 < x < 1 \\ x^2 & 1 \leq x \leq 4 \\ 3 & 4 < x. \end{cases}$

Fill in the following boxes if the required number exists; otherwise put a cross in the box.

$$\lim_{x \rightarrow -1^-} f(x) = \boxed{-1}$$

$$\lim_{x \rightarrow -1^+} f(x) = \boxed{-1}$$

$$\lim_{x \rightarrow -1} f(x) = \boxed{-1}$$

$$f(-1) = \boxed{\times}$$

$$\lim_{x \rightarrow 4^-} f(x) = \boxed{16}$$

$$\lim_{x \rightarrow 4^+} f(x) = \boxed{3}$$

$$\lim_{x \rightarrow 4} f(x) = \boxed{\times}$$

$$f(4) = \boxed{16}$$

$$\lim_{x \rightarrow 1} f(x) = \boxed{1}$$

$$\lim_{x \rightarrow 3^-} f(x) = \boxed{9}$$