

Quiz 1

Name:

ID #:

Section #:

Serial #:

Q1. (4 points) Sketch the graph of a function f that satisfies:

$$\lim_{x \rightarrow 1^-} f(x) = -1, \quad \lim_{x \rightarrow 1^+} f(x) = -\infty, \quad f(1) \text{ undefined}, \quad \lim_{x \rightarrow 3^-} f(x) = +\infty \text{ and } \lim_{x \rightarrow 3^+} f(x) = 2$$

Q2. (6 points) Let $g(x) = \begin{cases} x-1, & x \leq 2 \\ x^2, & 2 < x \leq 4 \\ 8-x, & x > 4 \end{cases}$

a. Find $\lim_{x \rightarrow 2} g(x)$

b. Find $\lim_{x \rightarrow 3} g(x)$

c. Find $\lim_{x \rightarrow 4} g(x)$

With My Best Wishes

Quiz 1

Name:

ID #:

Section #:

Serial #:

Q1. (4 points) Evaluate $\lim_{x \rightarrow 4} \frac{\sqrt{x} - 2}{x^2 - 16}$.

Q2. (6 points) If $f(x) = \frac{|x-2|}{x^2 + x - 6}$, then find $\lim_{x \rightarrow 2} f(x)$.

With My Best Wishes