King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 02 (151) Sec 07 - Quiz 1

Name: ID: Serial No.:

1. Find $\lim_{x \to -2^+} \dfrac{x}{\sqrt{x+2}}$

2. $\lim_{x \to \frac{5}{2}^+} \dfrac{[2x-3]}{2x-3}$

3. $\lim_{x \to 3^-} \dfrac{x^2-9}{|x-3|}$

4. $\lim_{x \to 2} \dfrac{\sqrt{x+7} - 3}{x^3 - 4x}$

5. $\lim_{x \to -2} \dfrac{\frac{1}{x} + \frac{1}{2}}{x^3 + 8}$

6. Evaluate the following limits, if they exist. If they do not exist explain why. Use the symbols $+\infty$ or $-\infty$ as appropriate:

- $\lim_{x \to 1^+} f(x) - g(x)$
- $\lim_{x \to 1^-} f(x) \times g(x)$
- $\lim_{x \to 2} \dfrac{f(x)}{g(x)}$
- $\lim_{x \to -2} \dfrac{3f(x) - g(x)}{3 + g(x)} =$