King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 101 (142) Sec 15 - Quiz 1

Name: ID: Serial No.:

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

2. Find $\lim_{x \to 4} \dfrac{4 - x}{5 - \sqrt{x^2 + 9}}$

3. Find $\lim_{x \to 0} \dfrac{x - x \cos x}{\sin^2 3x}$

4. For $\lim_{x \to -2} \sqrt{5 + 2x} = 1$ find $\delta > 0$ that works with $\epsilon = 1$, using the $\epsilon - \delta$ definition.

5. Find $\lim_{x \to 4^-} \dfrac{x^2 - 16}{|x - 4|}$

6. Find $\lim_{x \to 0} (\sin^2 x) \cos\left(\dfrac{1}{x}\right)$