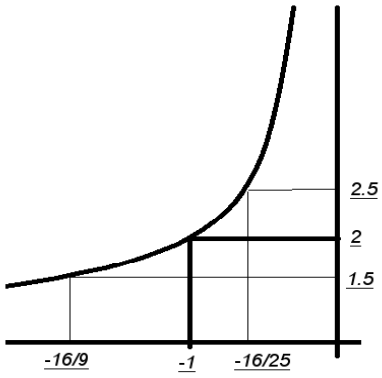
King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 101 (131) - Quiz 1

Name: ID: Serial No.:

1. Find the average rate of change of the function $f(x) = x^3 + 1$ on the interval $[-1, 1]$.

2. Use the graph of $f(x) = \frac{2}{\sqrt{-x}}$ to find a $\delta > 0$ such that for all x

$$0 < |x + 1| < \delta \quad \rightarrow \quad |f(x) - 2| < 0.5$$



3. Evaluate

(a) $\lim_{x\to -3} \dfrac{2-\sqrt{x^2-5}}{x+3}$,

(b) $\lim_{x\to -4^-} \dfrac{(2x+1)|x+4|}{(x+4)}$