

King Fahd University of Petroleum & Minerals
Department of Mathematics and Statistics
Math101/Calculus I
Quiz 1
Two Problems, January 31st, 2016 ¹

Problem 1 (10 points)

Find the following limits.

$$(1) \lim_{x \rightarrow 2} \frac{2 - \sqrt{x+2}}{2-x} =$$

$$(2) \lim_{x \rightarrow -1} \frac{4x^2 + 5x + 1}{x^2 + 3x + 2} =$$

Problem 2 (5 points)

Show that $\lim_{x \rightarrow \frac{\pi}{2}} (x - \frac{\pi}{2})^2 \cos\left(\frac{1}{x - \frac{\pi}{2}}\right) = 0$.

¹The quiz lasts 20 minutes.