

King Fahd University of Petroleum & Minerals  
Department of Mathematics and Statistics  
**Math101/Calculus I**  
**Quiz 1**  
Two Problems <sup>1</sup>

**Problem 1 (10 points)**

Find the following limits.

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

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

**Problem 2 (5 points)**

Use the Squeeze Theorem to find  $\lim_{x \rightarrow 0} x^2 \sin\left(\frac{1}{x}\right)$ .

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<sup>1</sup>The quiz lasts 15 minutes.