

**KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS**  
**DEPARTMENT OF MATHEMATICS AND STATISTICS**  
**MATH 101 - QUIZ 1**

Name:

Student ID #:

**Question1.** Decide whether the following limit is  $+\infty$  or  $-\infty$ .

$$\lim_{x \rightarrow 5^-} \frac{x^3 - 5^3}{(x - 5)^3}$$

**Question2.** If it exists, evaluate the following limit.

$$\lim_{x \rightarrow 0} \left( \frac{1}{t\sqrt{1+t}} - \frac{1}{t} \right)$$

**Your Solution.**