Department of Mathematics and Statistics KFUPM
MATH 101-08 Quiz#1, Time: 20 mins

Student's Name: _____ ID: _____ Section No: _____

Class Time: _____ Instructor's Name: _____

Q.No.1:- Consider the function

$$f(y) = \begin{cases} 1 + y^2 + y \sin\dfrac{1}{y}, & y \neq 0 \\ b - 1, & y = 0 \end{cases}$$

Find the value of b, if exists, which makes the function continuous everywhere.

Sol:

Q.No.2:- Evaluate the following limit, if exists.

$$\lim_{y \to 1^-} \frac{y-1}{|1-y^2|}$$

Sol: