KFUPM – Department of Mathematics and Statistics – Term 153

MATH 101

QUIZ # 2: Code 1 (Duration = 15 minutes)

NAME:_____ ID:_____ Section: _____

Exercise 1 (5 points)

Find $\delta \succ 0$ which satisfies $|f(x)-2| \prec \frac{1}{2}$ when $|x-1| \prec \delta$ where $f(x)=\frac{x+1}{x}$

Exercise 2 (5 points)

Show that the equation $\cos x + x + 1 = 0$ has at least one real root.

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QUIZ # 2: Code 2 (Duration = 15 minutes)

NAME:_____ ID:_____ Section: _____

Exercise 1 (5 points)

Find $\delta \succ 0$ which satisfies $|\ f(x) - \frac{1}{2}| \prec \frac{1}{2}$ when $|\ x - 2| \prec \delta$ where $f(x) = \frac{x-1}{x}$

Exercise 2 (5 points)

Show that the equation $\sin x + x + 1 = 0$ has at least one real root

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QUIZ # 2: Code 3 (Duration = 15 minutes)

NAME:_____ ID:_____ Section: _____

Exercise 1 (5 points)

Find $\delta \succ 0$ which satisfies $|f(x)-2| \prec \frac{1}{2}$ when $|x-1| \prec \delta$ where $f(x)=\frac{4x-2}{x}$

Exercise 1 (5 points)

Show that the equation $\tan x + x + 1 = 0$ has at least one real root.