KFUPM – Department of Mathematics and Statistics – Term 142

MATH 102

QUIZ6 # Code 1 (Duration = 20 minutes)

NAME:_____ ID:_____ Section: _____

Exercise 1 (5 points)

Determine whether the series $\sum_{n=1}^{\infty} \frac{\tan^{-1} n}{n^2+1}$ is convergent or divergent (Justify).

Exercise 2 (5points)

Determine whether the series $\sum_{n=1}^{\infty} (-1)^n \left(\frac{n}{2} \sin(\frac{1}{n}) \right)^n$ is convergent or Divergent (Justify).

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MATH 102

QUIZ # 6 Code 2 (Duration = 20 minutes)

NAME:_____ ID:_____ Section: _____

Exercise 1 (5points)

Determine whether the series $\sum_{n=1}^{\infty} \frac{n \ln(n^2+1)}{n^2+1}$ is convergent or divergent

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Exercise 1 (5 points)

Determine whether the series $\sum_{n=1}^{\infty} (-1)^n \left(\frac{1}{2} - \frac{\ln(1+n)}{n} \right)^n$ is convergent or divergent (Justify).