KFUPM | Term 142 | Date: 4/5/2015

Mathematics & Statistics | MATH 102 | Duration: 20 minutes

Quiz# 5

Name: ID #: Section #: **2** Serial #:

1. $\left\{\dfrac{\ln n}{\ln 2n}\right\}$ is (convergent / divergent), because_____.

1. $\left\{\dfrac{(-1)^n n^3}{n^3+2n^2+1}\right\}$ is (convergent / divergent), because_____.

2. $\displaystyle\sum_{n=1}^{\infty}\ln\left(\frac{n}{2n+5}\right)$ is (convergent / divergent), using_____Test.

2. $\displaystyle\sum_{n=1}^{\infty}(x-1)^n$, $1<x<2$ is (convergent / divergent), using_____Test.

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Quiz# 5

Name: ID #: Section #: **6** Serial #:

1. $\left\{\dfrac{(-1)^{n-1}\, n}{n^2+1}\right\}$ is (convergent / divergent), because_____.

2. $\displaystyle\sum_{n=1}^{\infty}\frac{1}{5+n^2}$ is (convergent / divergent), using_____Test.

2. $\displaystyle\sum_{n=1}^{\infty}\frac{n}{n^2+1}$ is (convergent / divergent), using_____Test.

1. $\displaystyle\sum_{n=1}^{\infty}\left(-\frac{n}{5}\right)^{n}$ (converges / diverges) using_____Test.

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Quiz# 5

Name: ID #: Section #: **15** Serial #:

1. $\left\{\dfrac{e^{n}+e^{-n}}{e^{2n}-1}\right\}$ is (convergent / divergent), because_____.

2. $\sum_{n=1}^{\infty}\dfrac{2\cdot 4\cdot 6\cdots(2n)}{n!}$ (converges / diverges) using_____Test.

2. $\displaystyle\sum_{n=1}^{\infty}\frac{(-1)^{n}}{n\ln n}$ (converges / diverges) using_____Test.

1. $\displaystyle\sum_{n=1}^{\infty}\frac{\cos\left(\dfrac{n\pi}{3}\right)}{n!}$ (converges / diverges) using_____Test.

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