Math 141 **name**_____

Quiz 6 not quiz 7

Due November 9, 2015

- Test the series for convergence or divergence.
- Name the test used, and support your conclusion.
- Whenever possible, find the sum if convergent.

$$\sum_{n=1}^{\infty} \frac{n^2}{n^4+1}$$

Test :

Apply test / reasoning :

Converge / diverge :

Sum, if possible :

$$\sum_{n=0}^{\infty} \frac{2^n}{n!}$$

Test :

Apply test / reasoning :

Converge / diverge :

Sum, if possible :

$$\sum_{n=0}^{\infty} (-1)^n \frac{2}{5^n}$$

Test :

Apply test / reasoning :

Converge / diverge :

Sum, if possible :

$$\sum_{n=0}^{\infty}(-1)^{n+1}\frac{1}{2n+1}$$

Test :

Apply test / reasoning :

Converge / diverge :

Sum, if possible :

$$\sum_{n=0}^{\infty}\frac{n^2}{2n^2+1}$$

Test :

Apply test / reasoning :

Converge / diverge :

Sum, if possible :

$$1+\frac{1}{\sqrt{2}}+\frac{1}{\sqrt{3}}+\frac{1}{2}+\frac{1}{\sqrt{5}}+\frac{1}{\sqrt{6}}+\ldots$$

Test :

Apply test / reasoning :

Converge / diverge :

Sum, if possible :