

MATH 152

Mrs. Bonny Tighe

**QUIZ 7**

25 points

12.5, 12.6

NAME \_\_\_\_\_

Section \_\_\_\_\_ Wed. 4/12/06

1. Test the series for convergence or divergence. **State the test you use** and show ~~your~~ your work. If the series is an Alternating Series, find if it is Absolutely or Conditionally convergent.

a)  $\sum_{n=1}^{\infty} \frac{(-1)^n (n-1)}{n^3 + 2n}$

b)  $\sum_{n=1}^{\infty} \frac{(-2)^n}{n5^{n-1}}$

c)  $\sum_{n=1}^{\infty} \frac{10^n}{n!}$

d)  $\sum_{n=1}^{\infty} \frac{2^n n}{n!}$

e)  $\sum_{n=1}^{\infty} \frac{n!}{e^n}$

f)  $\sum_{n=1}^{\infty} \left( \frac{3}{1+8n} \right)^n$

g)  $\sum_{n=1}^{\infty} \frac{(-1)^{n-1} \ln n}{n^2}$

h)  $\sum_{n=1}^{\infty} \frac{(-1)^{n-1}}{(n+1)!}$