MATH 152 **QUIZ 7A** NAME _____

Mrs. Bonny Tighe 25 points Wed. 11/2/05

12.4, 12.5, 12.6

1. Test the series for convergence or divergence. State the test you use and show all work. If the series is an Alternating Series, find if it is Absolutely or Conditionally convergent. Use each test at least one time.

a) $\displaystyle\sum_{n=1}^{\infty}\left(\frac{-4n}{1+5n}\right)^{n}$

b) $\displaystyle\sum_{n=1}^{\infty}\frac{5^{n}}{n!}$

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

d) $\displaystyle\sum_{n=1}^{\infty}\frac{3^{n}\,n!}{n^{4}}$

e) $\displaystyle\sum_{n=1}^{\infty} \frac{n(-3)^{n+}}{7^n}$

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

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

h) $\displaystyle\sum_{n=1}^{\infty} \frac{(-1)^{n-1} \ln n}{n}$