Math 166: Honors Calculus II Quiz 10 Apr. 25, 1996 Name:\_\_\_\_\_

- 1. State the following.
  - a) Root Test

b) Ratio Test

c) Leibniz's Rule

d) Definition of conditional convergence.

2. a) Determine whether the series  $\sum_{n=1}^{\infty} \frac{(-1)^n n!}{n^n}$  is absolutely convergent, conditionally convergent, or divergent.

b) Describe the set of real numbers x for which the series  $\sum_{n=1}^{\infty} \frac{(-1)^n x^{2n}}{n2^n}$  converges.