

Name: _____ Section: _____

Answer all questions and show your work. Unsupported answers may receive *no credit*. You may not use a calculator on this quiz. Allow 15 minutes for the quiz.

1. (5 points) Use the Ratio Test to determine whether the series

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

converges or diverges.

2. (5 points) Determine the interval of convergence for the power series $\sum_{n=1}^{\infty} \frac{(-1)^{n-1} x^n}{3^n n}$.