Homework3

1. Use the Root Test to determine the convergence or divergence of the series.

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

2. Find the interval of convergence of the power series.

$$\sum_{n=0}^{\infty} \frac{(x-3)^{n+1}}{(n+1)4^{n+1}}$$