

Name:

1. (3pts) Determine (and justify) whether the series is convergent or divergent.

$$\sum_{n=1}^{\infty} \frac{\sin n}{n^{3/2}}$$

2. (3pts) Determine (and justify) whether the series is convergent or divergent.

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

3. (4pts) What's the interval of convergence of

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