Math 276 Discussion Worksheet 7

1. Determine the convergence or divergence of the following series.

a. $\displaystyle\sum_{n=1}^{\infty} \frac{2^n}{n!}$ **b.** $\displaystyle\sum_{n=1}^{\infty} \frac{n^2}{2^n}$

2. Determine the convergence or divergence of the following series.

a. $\displaystyle\sum_{n=1}^{\infty} \frac{1}{n \log n}$ **b.** $\displaystyle\sum_{n=1}^{\infty} \frac{1}{n(\log n)^2}$

3. Determine the convergence or divergence of the following series.

a. $\displaystyle\sum_{n=1}^{\infty} (-1)^n \sin \frac{1}{n}$ **b.** $\displaystyle\sum_{n=1}^{\infty} \frac{\sin n}{n}$