

1 Show that
5 points

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

converges if and only if $p > 1$.

2 Determine if the series
5 points

$$\sum_{n=1}^{\infty} \frac{1}{n \sqrt[n]{n}}$$

converges or diverges.