## Calculus II

## Convergence of $\sum \frac{1}{n^p}$

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This theorem summarizes the results of the previous example.

## Theorem (*p*-series Convergence)

The p-series  $\sum_{n=1}^{\infty} \frac{1}{n^p}$  is convergent if p > 1 and divergent if  $p \le 1$ .