MAC2312: Calculus 2 - Section 3

Quiz 15: 11.3 The Integral Test

1. Determine whether the following series is convergent or divergent

$$1 + \frac{1}{8} + \frac{1}{27} + \frac{1}{64} + \frac{1}{125} + \cdots$$

   A. convergent

   B. divergent

$$1 + \frac{1}{8} + \frac{1}{27} + \frac{1}{64} + \frac{1}{125} + \cdots = \sum_{n=1}^{\infty} \frac{1}{n^3}$$

is convergent since it is a p-series with $p = 3 > 1$.