Homework Set 14

(sect 8.3: Integral & P-series Tests)

Use the integral test or the p-series test to determine whether each series is convergent or divergent.

$$\sum_{n=1}^{\infty} \frac{3}{\sqrt[3]{n}}$$

$$\sum_{k=1}^{\infty} \frac{1}{k^5}$$

$$\sum_{n=0}^{\infty} \frac{n}{\sqrt{n^2+5}}$$

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

$$\sum_{k=4}^{\infty} \frac{7}{k\sqrt{k}}$$

$$\sum_{n=1}^{\infty} ne^{-3n^2}$$