

Section 11.3: Additional Problems

1) Determine if this series is convergent or divergent. Fully justify your answer.

$$\sum_{n=3}^{\infty} \frac{1}{n^2 + 3n + 2}$$

2) Consider the series $\sum_{n=1}^{\infty} ne^{-n^2/2}$

A) Show the series converges.

B) Find s_4 . Estimate the error involved in this approximation.

3) For the series given below, what is the smallest number of terms that need to be used so that the error is less than 0.005?

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