

Homework Assignment for Week 02

1. Section 10.4: Problems 17, 27, 29, 31, 43, 45, 51, 61, 62.

Note in problem 62: the case $p = 1$, $q < -1$ should be convergent, instead.

2. Section 10.5: Odd numbered problems in problem 17-43, 61, 65.

3. (Optional) Remark on Example (c') in page 12 of mse19s_190226.pdf. This problem is actually beyond this course. For those who are interested, take the following Stirling's formula for granted

$$\lim_{n \rightarrow \infty} \frac{e^n n!}{n^n \sqrt{n}} = \sqrt{2\pi} \quad (1)$$

and use it to find a suitable series to compare with.