Study guide for quiz 02

Quiz problems include both the lecture contents and homework problems.

1. Section 10.2: Study the definition of convergence of a series and proof of the n-th term test. Review conditions on convergence/divergence of a geometric series. Review the technique of telescoping sum.

2. Section 10.3: Study the statement and proof of the integral test. Practice with examples. In particular, derive and memorize the convergence/divergence of a p-series.

3. Section 10.4: Study The Comparison Test and The Limit Comparison Test. Focus on how to find a suitable target series to compare with. In almost all cases, the target series can be found from the geometric series, the p-series and series of the form $\displaystyle\sum_{n=1}^{\infty} f(n)$ where $\displaystyle\int_{1}^{\infty} f(x)\, dx$ is easy to compute.