

1. (Lecture 8)
 - (a) Prove that all Cauchy sequences are bounded (Lemma 10.10)
 - (b) State and prove the Cauchy criterion (Theorem 10.11 and Lemma 10.9)
2. (Lecture 14)
 - (a) State and prove the Maximum-value Theorem (Theorem 18.1)
3. (Lecture 15)
 - (a) Give the definition of a function continuous on a set
 - (b) Give the definition of a function uniformly continuous on a set
 - (c) State the Bolzano-Weierstrass Theorem (Theorem 11.5, Lecture 9)
 - (d) State and prove the Cantor-Heine Theorem (Theorem 19.2)
4. (Lecture 22)
 - (a) Give the definition of the Taylor polynomial
 - (b) State and prove the Taylor's theorem (Theorem 31.16)