

Homework Assignment for MATH 508 Complex Analysis

Homework 1: (Due to September 11)

Page 21-25: Exercise 7, 10, 16, 19, 30, 32, 39, 41. (do at least 5 problems)

Optional: Page 21-26: Exercise 6, 9, 17, 23, 31, 33, 34, 42

Homework 2: (Due to September 21)

Page 26-27: Exercise 47, 48, 50, 51, 53, 55, 56, 60 (do at least 5 problems)

Optional: Other problems in page 26-28.

Homework 3: (Due to October 2, Friday)

Page 62-67: Exercise 2, 9, 11, 15, 19, 22, 25, 31, 36, 43.

Optional: Other problems page 60-67,

Homework 4: (Due to October 16, Friday)

Page 94-103: Exercise 2, 4, 9, 18, 21, 27, 30, 33, 37, 42.

Optional: Other problems page 94-103,

Homework 5: (Due to October 30, Friday)

Page 145-152: Exercise 1, 6, 8, 9, 18, 21, 31, 32, 35, 38,

Optional: Other problems page 145-152,

Homework 6: (Due to December 4, Friday)

Page 152-156: Exercise 40, 44, 45, 62, 68,

Page 174-178: Exercise 1, 5, 8, 11, 13, 16, 17,

Page 202-206: Exercise 2, 5, 8, 11, 14, 15, 17, 24, 31, 35

Optional: Other problems page 152-156, page 174-178 and page 202-206

Topics of Presentation for Part of Final Exams: Choose one of the following topic to give a presentation in class

Topic 1: Section 8.2 the Weierstrass Factorization Theorem

Topic 2: Section 8.3 The Theorem of Weierstrass on Interpolation Problem (Theorem 8.3.1-Corollary 8.3.4)

Topic 3: Section 8.3 The Theorem of Mittag-Leffler on Interpolation Problem (Lemma 8.3.5-Theorem 8.3.8)

Topic 4: Section 9.1 Jensen's Formula and Blaschke Products

Topic 5: Section 9.2 The Hadamard Gap Theorem