

Preparation for Examination 2

This is a rough summary. More detailed information will be forthcoming next week.

The examination will cover material from the following sections of the course notes:

Sections IV.1 to IV.4, V.1 to V.5, VI.1 to VI.4, VII.1

However, the following topics in these sections will not be covered:

IV.1: *A problem involving polar coordinates*

IV.4: *The Axiom of Replacement*

V.3: *Boolean algebras of subsets*

V.5: *Proof of Theorem 5 and Appendix to this section (containing proofs)*

VI.2: *Formal characterizations of large products and Universal mapping property*

VI.4: *Historical notes on transcendental numbers and Footnote on transcendental functions*

Strongly recommended exercises and solutions

Here are the recommended exercises to work for Chapters VI and VII (pdf references are to files in the course directory):

[set-theory-exercises.pdf](#)

VI.1.1-4

VI.2.2-4

VI.3.1

VI.4.1,2,4

VII.1.1-2

VII.3.2

[Schaum's Outline](#)

5.3, 5.31, 9.14, 6. 2-3, 6.12, 6.14

[exercises94f17.pdf](#)

V.2.113

VI.2.101

VI.3.102-103

VI.4.101

VII.1.101-102

Here are the recommended solutions to read for a passive understanding:

[set-theory-exercises.pdf](#)

VI.1.1-4

VI.2.1

VI.3.2

VI.4.5

[solutions94f17.pdf](#)

V.2.114

VI.3.101