

Exercises DataBase
for the first year class in Mathematics
in Scuola Normale Superiore

Andrea C. G. Mennucci

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Pisa, Italy

Collections of exercises and theoretical bits proposed to first year students in “Scuola Normale Superiore”.

[this is a draft there are many errors]

§1 Introduction

[100]

§2 Notations

[002_notazioni]

§3 Fundamentals

[003_fondamenti]

§4 Natural numbers

[003_numeri]

§5 Groups, Rings, Fields

[12D]

§6 Real line

[004_retta-reale]

§7 Sequences and series

[005_successioni-e-serie]

§8 Topology

[006_topologia]

§9 Miscellanea

[2FB]

§10 Metric spaces

[007_spazi-metrici]

§11 Dimension

[008_dimensione]

§12 Normed spaces

[009_spazi-normati]

§13 Semicontinuity, right and left limits

[00B_semi-continuita-limiti-destri-e-sinistri]

§14 Continuity

[00C_continuita]

§15 Convex functions and sets

[00D_funzioni-e-insiemi-convessi]

§16 Riemann integral

[00F_integrale-di-riemann]

§17 Differentiable functions

[00G_funzioni-derivabili]

§18 Limits of functions

[00H_limiti-di-funzioni]

§19 Power series

[00J_serie-di-potenze]

§20 Analytic functions

[00K_analitiche]

§21 Curve

[00M_curve]

§22 Surfaces

[00P_superfici]

§23 Ordinary Differential equations

[00Q_equazioni-differenziali]

§24 Written exams and pseudo–exams

[00R_pseudocompitini]

Ideas and exercises without solution

[00S_idee-e-esercizi-senza-soluzione]

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