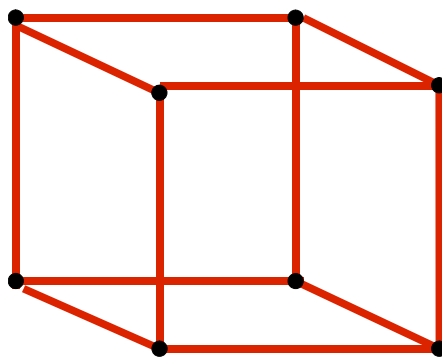


KURS 3b, 3 och 4 lärobok med övningsuppgifter
Naturvetenskap och teknik

Sigurd Eriksson

Matematik

DEL II



bearbetad av
Lennart Gombrii

Reissue of Sigurd Eriksson Mathematics I & II

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Foreword

When I two years ago was aware of the burden that our high school students' math skills have drastically declined over the past 10 years, I decided to give today's students the opportunity to take part of

Sigurd Eriksson's

Textbooks, which I read in grade 1 and 2 of the three-year Higher Technical College (TGO) in Örebro.



CARL SIGURD ERIKSSON

Born in St. Tuna 1889 7/4. GCE in Falun 1908, BMA in Uppsala in 1912, teacher at TGÖ in Örebro from 1917 and senior master from 1920 to his death 1948.

Sigurd Erikssons background¹

Eriksson was active in the TGO from 1917 until his death in 1948.

The intension of the textbooks were to provide the students with a solid mathematical foundation to be able to work as engineers in society and industry and prepare students for higher studies in universities and technical colleges

Many students, who study further at KTH in Stockholm and Chalmers University in Gothenburg, could skip the first grade because of their good mathematical skills acquired from TGO. To follow today's curriculum, I have added chapter 24 statistics. Each chapter follows, if possible, the same structure:

- Textbook Section
- Solutions
- Exercises
- Answers to the exercises The examples are divided into:
- *Example. nnn, e.g. Examples. 227. - Where Eriksson has provender a solution.*
- *Ex.nnn, e.g. Ex. 212. - Eriksson has not shown any solution.*
- *önnn.. e.g. ö912. - There is only a key which pupils with no other help can be able to solve the tasks.*
- *Pnn, - examination, e.g. P10.*

¹

Descript. from the Technical Association of Örebro.

Decimal point/comma

English mathematical literature uses the decimal point to separate decimals. Even many calculators use decimal point. In preparing this book I have used Microsoft Word, MathType from Design Science and Maple 18 from MapleSoft. The later program separates the decimals with decimal point. If the decimal point is replaced with a comma there pop up a space after the decimal point and the number looks just strange. Example: 3.14159 become in Maple 16 3, 14159 - but change it to decimal we get. Hence we get:

- Separate as decimal comma when using Word and MathType
- Separate as decimal point when using Maple 16.

Target group

This book and the subsequent "Mathematics Part II"² are aimed to students who wish to get mathematical tools to solve specific problems in their profession and to facilitate studies at university level.

Otherwise

Before you tackle to a task, try to put up a strategy for how to tackle the challenges. Discuss with your classmates, about how you can find out the best strategy for finding solution to the data. There are always several possibilities ways to solve a problem.

Cover image cube, you see either from below or from above. The perspective switches, but you can influence it. Similarly pops a different solution options in your brain when you're trying to find a viable solution. Do you have difficulty to find a solution in the evening, so it is often easy to find a solution on the morning after, when your mind is rested and yourself without your knowledge processed problem when you slept.

Remember to cherish your health - take care of your brain and body, eat nutritious food, exercise and indulge in sleep and rest to cope with their studies.

I get this to thank the Technical Association in Örebro and the Swedish Educational Writers Association - SLFF, who assisted me in my quest to återutgiva this now processed edition of Sigurd Eriksson's textbooks.

I must also express my thanks to Maplesoft, which charge transferred the software 'Maple 18' to me in the preparation of this book.

Further to thank Hermods AB, which has given me permission to utilize Professor Bo Kjellberg's course "Higher Engineering Course in Mathematics, letter 2" as the basis of Chapter 27- Complex numbers. S. Eriksson Mathematics Part II lacked this chapter.

Kungsbacka Maj 2015

Lennart Gombrii

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