
Outstanding Books

(an ever growing list used in various Cheenta Programs)

Cheenta Team - 2016



Books

Pre-college Level

Miscellaneous

- ❖ Mathematical Circles: Russian Experience; Dmitri Fomin, Sergey Genkin, Ilia V. Itenberg
- ❖ Challenges and Thrills of Pre-College Mathematics; V Krishnamurthy, C R Pranesachar
- ❖ Excursion in Mathematics
- ❖ Mathematical Olympiad Challenges; Titu Andreescu, Razvan Gelca
- ❖ Mathematical Gems Vol. 1, 2, 3; Dolciani Series

Geometry

- ❖ Geometric Transformations; Yaglom
- ❖ Lines and Curves; Vasilyev
- ❖ Problems in Plane Geometry; Sharygyn
- ❖ Geometry Revisited; Coxeter Greitzer
- ❖ Geometrical Etudes in Combinatorics; Alexander Soifer

Number Theory

- ❖ Elementary number Theory by David Burton
- ❖ Elements of Number Theory by Sierpinsky
- ❖ 104 Problems in Number Theory by Titu Andreescu

Algebra

- ❖ Elementary Algebra and Higher Algebra; Hall and Knight
- ❖ Inequalities through Problems; Venkatchala
- ❖ Inequalities; Korovkin (Little Math Library)
- ❖ Functional Equation; Venkatchala
- ❖ Complex Numbers from A to Z; Titu Andreescu

Combinatorics

- ❖ Principles and Techniques in Combinatorics; Chen Chuan-Chong, Koh Khee-Meng
- ❖ Introduction to Combinatorics; Brualdi

Problem Books

- ❖ Problem-Solving Strategies; Arthur Engel
- ❖ The Imo Compendium by Dusan Djuki, Vladimir Jankovi, Ivan Mati

Calculus

- ❖ Pre-Calculus; Tarasov
- ❖ Problems in Single Variable Calculus by Maron
- ❖ Single Variable Calculus by Piscunov
- ❖ Calculus Volume 1 and 2; Apostle

College Level

Analysis

- ❖ Principles of Mathematical Analysis by Rudin
- ❖ Introduction to Real Analysis by Bartle Sherbert

Topology

Topology of Metric Spaces by Kumaresan
Introduction to Topology by Christensen

Algebra

- ❖ Algebra by Artin
- ❖ Contemporary Abstract Algebra by Gallian
- ❖ Abstract Algebra by Dummit and Foote

Other Topics

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- ❖ Calculus by Stewart
 - ❖ Basic Multivariable Calculus by Marsden
 - ❖ Probability Vol. 1 by Feller

Problem Book

- ❖ Berkeley Problems in Mathematics
- ❖ Putnam and Beyond

Other Tools

- ❖ Geogebra (with scripting language)
- ❖ Python (for SAGE and other softwares for mathematical computing)
- ❖ Latex (for editing Mathematical documents)
- ❖ SAGE (for open source computation)