

Olympiad and School Research - Webinar



Dr. Ashani Dasgupta

PhD in Mathematics from University of Wisconsin-Milwaukee.

Published research in London Mathematical Society's Journal of Topology.

Resource Booklet on Books, Ideas



Path to Ivy League











for Grades 1 to 6

Choice of book is a very sensitive issue. It is critical to choose the right ones. Books may either inspire students or drive them away.

Rule of the thumb: Choose books authored by real mathematicians and scientists who have worked in the field of innovation. Do not use 'manual' type books peddled by publication houses who are hiring authors to address market demand. Here are some examples that we recommend in our programs. New books are suggested almost every month.



Math from Three to Seven: The Story of a Mathematical Circle for Preschoolers

Alexander Zvonkin



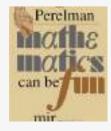
Math Circles for Elementary School Students

Natasha Rozhkovskaya



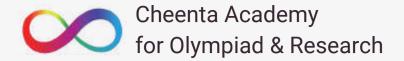
Math Circle by the Bay: Topics for Grades 1-5

Laura Givental, Maria Nemirovskaya, Ilya Zakharevich



Mathematics can be fun

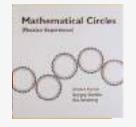
Yakov Perelman



for Grades 7 & 8

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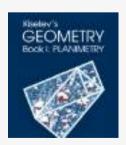
Mathematical Circles (Russian Experience)

Dmitry Fomin, Sergey Genkin, Ilia Itenberg



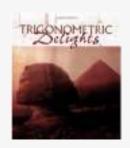
Algebra

Alexander Shen and Israel Gelfand



Kiselev's Geometry: Planimetry

Alexander Givental



Trigonometric Delights

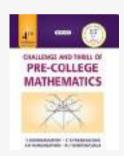
Eli Maor



for Grades 9 to 12

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Challenge and Thrill of Pre-College Mathematics

V Krishnamurthy, C R Pranesachar, K N Ranganathan, B J Venkatachala



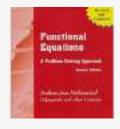
Principles and Techniques in Combinatorics

Chuan Chong Chen, Khee-meng Koh



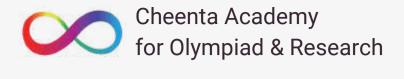
Complex Numbers from A to ...Z

Titu Andreescu, Dorin Andrica



Functional Equations, A Problem Solving Approach

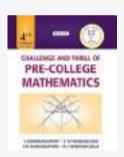
B.J. Venkatachala



for ISI, CMI Entrance

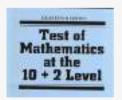
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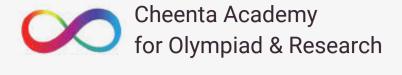
Test Of Mathematics At The 10+2 Level

Indian Statistical Institute



Problems In Calculus in One Variable.

I.A. Maron



Physics Book Recommendations

for Grades 5 to 7

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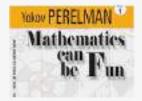
The Magic of Reality

Richard Dawkins



Mr Tompkins in Paperback

George Gamow

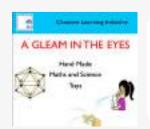


Physics can be Fun

Yakov Perelman

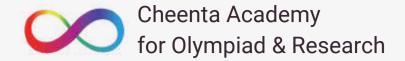
Build a Lab at Home

Physics needs to be hands on.



Gleam in the eye

(Authors) Manish Jain, Ravi Sinha, (Artist) Nidhi Gupta



Physics Book Recommendations

for Grades 8 to 10



Physics can be Fun

Yakov Perelman



How Round Is Your Circle?: Where Engineering and Mathematics Meet

John Bryant, Chris Sangwin



The Feynman Lectures on Physics (Volume I)

Richard Feynman

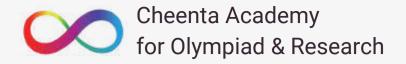
Simulated and Computational Experiments
Useful for Cheenta's Research Training Workshops on Physics



Algodoo



Stellarium



Physics Book Recommendations

for Grades 11-12



The Feynman Lectures on Physics

Richard Feynman



Concepts of Physics, Volume 1 & 2

H.C. Verma



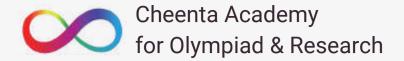
Physics

Halliday, Resnick, and Krane



Introduction to Classical Mechanics

David Morin



Computer Science Recommendations

Grades 4 - 6



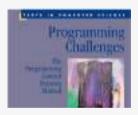
(For Parents) Mindstorms: Children, Computers, and Powerful Ideas

Seymour Papert



Alice is an innovative block-based programming environment that makes it easy to create animations, build interactive narratives, or program simple games in 3D.

Grades 7 - 12



Programming Challenges: The Programming Contest Training Manual

Steven S. Skiena, Miguel A. Revilla



Looking for a challenge?

Krzysztof Diks



Algorithm Design

Jon Kleinberg, Eva Tardos



Algorithms

Sanjoy Dasgupta, Christos Papadimitriou, Umesh Vazirani



Cheenta Team has 52 members

Outstanding researchers, olympians from the premier universities in India, US, Europe



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Srijit Mukherjee

(Pursuing) PhD in Statistics from Pennsylvania State University.

B.Stat & M.Stat from Indian Statistical Institute.



Dr. Sourayan Banerjee

PhD in Mathematics from Indian Institute of Science, Education & Research.

Research Fellow at Indian Institute of Technology, Kanpur



J.V. Raghunath

B.Tech and M.Tech from Indian Institute of Technology, Madras

Olympiad coach and research associate at Cheenta