

RMO Books

The following book treats the topics which are covered in the olympiads and also is a rich source of problems; (highly recommended)

- V. Krishnamurthy, C. R. Pranesachar, K. N. Ranganathan and B. J. Venkatachala, Challenge and Thrill of Pre-College Mathematics, New Age International Publishers.
- C. R. Pranesachar, S. A. Shirali, B. J. Venkatachala, and C. S. Yogananda, *Mathematical Challenges from the Olympiads*, Prism Books Pvt. Ltd. (Contains problems and solutions of International Mathematical Olympiad from 1986-1994).
- C. R. Pranesachar, B. J. Venkatachala, and C. S. Yogananda, *Problem Primer for the Olympiad*, Prism Books Pvt. Ltd., #1865, 32nd. Cross, BSK II Stage, Bangalore 560 070. or 49, Sardar Sankar Road, Kolkata 700029. Phone: 24633890/24633944.
- M. R. Modak, S. A. Katre, V. V. Acharya, *An Excursion in Mathematics*, Bhaskaracharya Pratisthan, 56/14 Erandavane, Damle Path, Pune 411 004.

The books listed below form the recommended reading for the various math competitions. Some are elementary, and some are not so elementary. As far as possible there are indicators to the type of the book but, of course, these can only be indicators....

• GEOMETRY

1. Durrell M. A., Modern Geometry, Macmillan & Co., London.
2. H. S. M. Coxeter and S. L. Greitzer, Geometry Revisited, Mathematical Association of America.
3. S. L. Loney, Plane Trigonometry, Macmillan & Co., London.

• NUMBER THEORY

1. I. Niven & H. S. Zuckerman, An Introduction to the Theory of Numbers, Wiley Eastern Ltd. New Delhi.
2. David Burton, Elementary Number Theory, Universal Book Stall, New Delhi.
3. G. H. Hardy & Wright, An introduction to the theory of numbers, Oxford University Publishers.

• PROBLEM BOOKS

- I M O Problem Collections
 1. S. L. Greitzer, International Mathematical Olympiad 1959-1977, MAA.
 2. M. S. Klamkin, International Mathematical Olympiad 1978-1985, MAA.
- General
 1. M. S. Klamkin, USA Mathematical Olympiads 1972-1985, MAA.
 2. D. O. Shklyarshky, N. N. Chensov and I. M. Yaglom, Selected problems and Theorems in Elementary Mathematics.
 3. W. Sierpinski, 250 Problems in Elementary Number Theory, American Elsevier.
 4. I. R. Sharygin, Problems in Plane Geometry, MIR Publishers.

• JOURNALS

1. Samasya, journal devoted to problem solving, published by Leelavati Trust, Bangalore.
2. Bona Mathematica, published by Bhaskaracharya Prathistana, Pune.

• General Reading

1. Arthur Engel, Problem-Solving Strategies, Springer.
2. S. A. Shirali, A Primer On Number Sequences, University Press.
3. S. A. Shirali, First Steps In Number Theory--- A Primer On Divisibility, University Press.
4. B. J. Venkatachala, Functional Equations---A Problem Solving Approach, Prism Books Pvt. Ltd., #1865, 32nd. Cross, BSK II Stage, Bangalore 560 070. or 49, Sardar Sankar Road, Kolkata 700029. Phone: 24633890/24633944.
5. S. Barnard & J.M. Child, Higher Algebra, Macmillan & Co., London, 1939; reprinted Surjeet Publishers, Delhi, 1990
6. W. S Burnside & A.W. Panton, The Theory of Equations, Vol. 1 (13th Edition), S. Chand & Co., New Delhi, 1990
7. D. M. Burton, Elementary Number Theory, Second Edition, Universal Book Stall, New Delhi, 1991
8. RA. Brualdi, Introductory Combinatorics, Elsevier, North-Holland, New York, 1977
9. H.S.M. Coxeter & S.L. Greitzer, Geometry Revisited, New Mathematical Library 19, The Mathematical Association of America, New York, 1967
10. C.V. Durell, Modern Geometry, Macmillan & Co., London, 1961
11. D. Fomin, S. Genkin & I. Itenberg, Mathematical Circles, First Reprinted Edition, University Press, New Delhi, 2000
12. H.S. Hall & S.R Knight, Higher Algebra, Macmillan & Co., London; Metric Edition, New Delhi, 1983

13. R Honsberger, *Mathematical Gems*, Part I (1973), Part II (1976), Part III (1985), The Mathematical Association of America, New York
14. N.D. Kazarinoff, *Geometric Inequalities*, New Mathematical Library 4, Random House and The L.W. Singer Co., New York, 1961
15. P.P. Korovkin, *Inequalities*, Little Mathematics Library, MIR Publishers, Moscow, 1975
16. I. Niven, H.S. Zuckerman & H.L. Montgomery, *An Introduction to the Theory of Numbers*, Fifth Edition, Wiley Eastern, New Delhi, 2000
17. A.W. Tucker, *Applied Combinatorics*, Second Edition, John Wiley & Sons, New York, 1984
18. G.N. Yakovlev, *High School Mathematics*, Part II, MIR Publishers, Moscow, 1984