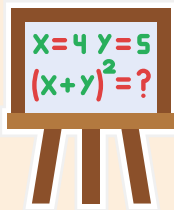


AMC 12

Custom program

48 hours

Algebra



Combinatorics



Geometry



Number Theory



Geometry

12 hours

Lesson	Topics
Lesson 1	Triangular Inequality
Lesson 2	Congruences and Parallel Lines
Lesson 3	Properties of Triangles
Lesson 4	Similar Triangles
Lesson 5	Ceva's and Menelaus theorem
Lesson 6	Mathematical Games
Lesson 7	Area of Triangles and Volume
Lesson 8	Basics of Circles - IAT
Lesson 9	Tangent to Circles - AST, Pitot's Theorem
Lesson 10	Cyclic Quadrilaterals - Power of point, Pedal line and Ptolemy's Theorem
Lesson 11	Miscellaneous problems on Triangles and Circles
Lesson 12	Construction Problems

Combinatorics

9 hours

Lesson	Topics
Lesson 1	Linear and Circular Permutations
Lesson 2	Combinations and Bijection Principle
Lesson 3	Arrangements and Selections with Repetition - Stars and Bars
Lesson 4	Binomial Theorem and its Coefficients, Pascal Triangle
Lesson 5	Hockey Stick identity, Multinomial Theorem and its coefficients
Lesson 6	Pigeon - Hole Principle and Constructive Counting
Lesson 7	Principle of Inclusion and Exclusion and Derangements
Lesson 8	Recurrence Relations
Lesson 9	Introduction to Graph Theory

Lesson	Topics
Lesson 1	Inequality - Basic inequalities and Cross multiplication method
Lesson 2	Inequality - AM-GM-HM inequality proof, Cauchy Schwarz inequality, Transformation
Lesson 3	Measures of Central Tendency
Lesson 4	System of Linear Equations in 2, 3 variables and Higher Order Equations
Lesson 5	Finite Series and Sequences - AP, GP, Special Finite series and Telescoping series
Lesson 6	Finite Series and Sequences - Trigonometric series and Summations with Binomial coefficients
Lesson 7	Polynomials - Division Algorithm, Remainder and Factor Theorem, Vieta's Formula, FTA
Lesson 8	Polynomials - Rational Root Theorem, Reciprocal and Symmetric Polynomial
Lesson 9	Polynomials - Harder problems on Polynomials
Lesson 10	Complex Numbers in Algebraic Form
Lesson 11	Complex Numbers in Trigonometric Form and nth Roots unity
Lesson 12	Basic Functional Equations

Number Theory

9 hours

Lesson	Topics
Lesson 1	Basic Principles in Number Theory - Well ordering Principle, Mathematical Induction, Divisibility - Division Algorithm
Lesson 2	GCD, LCM, Bezout's Lemma, Euclidean Algorithm
Lesson 3	Prime Numbers - FTA and Number Bases
Lesson 4	Congruences - Day 1 - Basic properties
Lesson 5	Congruences - Day 2 - Linear Congruences and CRT
Lesson 6	Diophantine Equations
Lesson 7	Problems on Parity and Power of Integers
Lesson 8	Greatest Integer Function and Digits of Numbers
Lesson 9	Arithmetic Functions - Number and Sum of Divisors, Euler's Totient Function

Thank You

Passion for Mathematical Science

Let us know if you need more information.



Email

support@cheenta.com



Phone

+91 76050 19991/19992

+1 414 220 0191



Address

2nd Floor, 22, Lake Place Rd, Kolkata, West Bengal 700029, India



Website

www.cheenta.com