MC15F-2

Introduction to Elementary School Math Competitions Part 2

Session 1 :   Word Problems & Unknowns
- Converting word problems into mathematical equations
- Solving one-unknown linear equations

Session 2 :   Time & Travel
- Unit conversions (ounces to pounds, square feet to square yards, etc.)
- Distance = Rate × Time
- Average speed, relative speed

Session 3 :   Work Problems
- Word problems involving rates of work / output
- Similarity between work and D = R × T

Session 4 :   Math League Exam Review
- Mock exam for The Math League Contest
- Reviewing the test/exam

Session 5 :   Sequences-1
- Definition of a sequence
- Mean, median, mode, range

Session 6 :   Gauss Sums
- Definition of an arithmetic sequence
- Sum of the terms of an arithmetic sequence

Session 7 :   Sequences-2
- Arithmetic sequences
- Geometric sequences
- Recursive sequences

Session 8 :   PIMC Exam Review
- Mock exam for PI Math Contest
- Reviewing the test/exam

Session 9 :   Prime Numbers & Prime Factorization
- Definition of prime, composite numbers
- Checking if a number is prime
- Factor trees, examples of prime factorization using exponents

Session 10 :   Divisibility Rules
- Divisibility rules for 2, 3, 4, 5, 6, 8, 9, 10, and 11
- Divisibility by other numbers that are the product of two or more of the above numbers (e.g. 36, 99)

Session 11 :   Math Kangaroo Exam Review
- Mock exam for Math Kangaroo Contest
- Reviewing the test/exam

Session 12 :   Number of Divisors
- Determining the number of divisors of a given positive integer by computing its prime factorization

Session 13 :   Angles
- Angles and terminology
- Parallel, perpendicular ,and transversal lines
- Angles in a triangle, in a quadrilateral
- Types of triangles and their properties

Session 14 :   Noetic Exam Review
- Mock exam for Noetic Learning Mathematics Contest
- Reviewing the test/exam

Session 15 :   Perimeter
- Perimeter of polygons
- Pythagorean theorem
- Circumference of a circle

Session 16 :   Area
- Definition of area and square units
- Area formulas for squares, rectangles, parallelograms, rhombuses
- Area of a triangle
- Area of a circle