

LEAVING CERT. MATHS

PAPER I

Arithmetic or Linear
 first difference is constant
 2nd difference is constant
 3rd diff. is constant

Quadratic
 involves doubling, tripling or halving etc.

Exponential
 involves doubling, tripling or halving etc.

Use the general term of an arithmetic sequence to find any term in the sequence. $a = 1st\ term$
 $d = common\ difference.$

Use $S_n = \frac{n}{2} [2a + (n-1)d]$ to find the sum of any number of terms in an arithmetic series.

Number Patterns
 $T_n = a + (n-1)d.$

Arithmetic
 - Profit = $\frac{Profit}{Cost\ Price} \times 100$
 - Rate of change = $\frac{Change\ in\ Quantity}{Change\ in\ Time}$
 - Depreciation = $F = P(1-i)^t$
 - Compound Interest: $F = P(1+i)^t$
 - VAT: Tax charged on consumer spending
 - Non statutory: health insurance, union fees, pension payments

Algebra
 - Solving One linear One quadratic
 - Manipulation of formulae
 - Making a letter the subject of the formula
 - Isolating the letters wanted

Algebra
 - Solving Equations
 - Simultaneous
 - Factorising
 - Difference of two squares
 - Getting rid of a fraction
 - Multiply across by common denominator

Complex Numbers
 - ARGAND Diagram
 - Modulus
 - Conjugate
 - ARGUMENT

Calculus
 - Limits
 - Differentiate with respect to x
 - Second Derivatives
 - Max/Min Problems
 - Chain Rule

Algebra
 - Solving Equations with Fractions
 - Adding Algebraic Fractions
 - Multiplying Brackets
 - Inequalities
 - Indices

REAL NUMBERS
 - Prime Number
 - H.C.F & L.C.M
 - Integers
 - Rational
 - Irrational

Indices
 - Equations with Indices
 - Surds
 - Simplifying

Graphing Functions
 - Linear
 - Quadratic
 - Exponential

Algebra
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