

National 5 Applications of Maths - Prelim - what you need to know:

- Fractions
 - Top Heavy Fractions and Mixed Numbers
 - Adding and Subtracting Fractions
 - Comparing Fractions
- Calculating time intervals including time zones and interpreting timetables
- Distance/Speed/ Time (involves changing hours and minutes to decimal times, and changing decimal times back to hours and minutes)
- Perimeter and area of: square, rectangle, triangle, kite, rhombus, trapezium, circle, half a circle, quarter of a circle, composite shapes), circumference of a circle
- Volume and Capacity (cube, cuboid, prism, cylinder, cone, pyramid, sphere, composite shapes)
- Ratio and Proportion (Direct and Indirect)
- Graphs/Charts/Tables
- Probability
- Finance:
 - Income
 - Wages and Salaries - weekly, monthly, annually, calculating hourly rate
 - Overtime - double, time and a half, treble, calculating hourly rate
 - Calculating Commission
 - Gross Pay, Deductions, Net Pay
 - Payslips
 - Wage increase & decreases
 - Tax Allowance
 - Rates of Income Tax (0%, 20%, 40%, 45%)

- Calculating VAT
 - Hire Purchase
 - Insurance
 - Profit & Loss
 - Foreign Exchange (use of at least two/three currencies in a multi-stage task)
 - Simple Interests + savings
 - Compound Interests
 - Borrowing Money - loans, credit cards, store cards, credit agreements
 - Best Deals - per unit, e.g. 100g, 1l, etc.
- Statistics:
- Mean, median, mode, range to compare data
 - Finding quartiles
 - Calculating and interpreting Interquartile Range (IQR)
 - Boxplots - constructing, interpreting and comparing
 - Standard Deviation - calculating and comparing
- Tolerance - Involving Percentages and effects of applying tolerance
- Rules & Formulae
- Formulae in Words - Based on two related pieces of information
 - Formulae with Symbols - Based on two related pieces of information
- Pythagoras' Theorem Problem Solving in Context - two stage calculations, e.g. Pythagoras and gradient, Pythagoras and area, etc.
- Gradients

- Calculating gradient using vertical distances and horizontal distances
- Using Gradients to solve problems
- Problem Solving
 - Effective Packaging
 - Precedence Tables and Diagrams
- Scale drawings and scale drawing with bearings