

Y10 end of year exam – Revision list (Foundation)

- 1) Squares, cubes and roots, Laws of indices to multiply and divide, using BIDMAS and the correct use of calculators for all calculations
- 2) Integers, place value and decimals, calculations with decimals, round to decimal places and significant figures
- 3) Use Pythagoras' Theorem and trigonometry on right-angles triangles, find angles of elevation and depression and know the exact values for sin, cos and tan of 0, 30, 45, 60 and 90 degrees
- 4) Algebra: Write expressions, know the difference between an expression/equation/formula/identity, simplify expressions, expand single brackets, factorise into brackets, derive formulae, substitute into formulae
- 5) Convert between fractions, percentages and decimals, calculate with fractions, express a number as a percentage of another number
- 6) Two way tables, stem and leaf diagrams, calculate the mode and range from a frequency table, construct a frequency table for continuous data, Draw and interpret composite bar charts, line graphs, stem and leaf diagrams, Interpret and draw pie charts, plot and interpret scatter diagrams, draw and use the line of best fit, correlation
- 7) Use angle facts of triangles, quadrilaterals, parallel lines, interior and exterior angles in polygons and regular polygons
- 8) Factors, Multiples and Primes, finding HCF and LCM using prime factors and Venn diagrams
- 9) Graphs: Plot straight line graphs using $y=mx+c$, find the equation of a straight line, real-life graphs, distance-time and velocity time graphs and interpret the gradient from these graphs
- 10) Percentages: express one numbers as a percentage of another, find percentages without a calculator and with a calculator, find the percentages increase and decrease, use percentages in real life stations, Finds a percentage using a multiplier
- 11) Equations and inequalities: Solve equations including those with brackets, unknowns on both sides and with fractions, find an equation using a graph, show inequalities on a number line, solve a linear inequality
- 12) Sequences: Recognise sequences of odd and even numbers and other sequences including Fibonacci sequences, use term-to-term rules and position-to-term rules, recognise sequences of square, cube and triangular numbers, recognise patterns from diagrams, Using and finding the nth term of an arithmetic sequence, find the term-to-term rule of a geometric sequence and use the nth term to generate a quadratic sequence

Please note: there may be some number problem solving questions and topics you studied in Year 9 such as scatter diagrams, ratio and proportion, transformations including enlargement and probability.

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