Year 9 Objective List – Higher   HT1 – 2022-23

Number and Multiplicative Reasoning:

Objective	Sparx Task	
Evaluate expressions with brackets and powers	M237	
Substituting into expressions with brackets and powers	M327	
Recap of multiplying and dividing with index laws	M235, M694	
Is this number in standard form?	U330, U534	
Putting large numbers into standard form	U330	
Putting small numbers into standard form	U534	
Multiplying with standard form	U264	
Adding and subtracting with standard form	U290	
Find the reciprocal of an integer, decimal and fraction including mixed numbers		
Understanding what a negative power is and how to write numbers with negative powers	U694	
Calculating fractional powers (unit fractions)	U235	
Understand what a fractional index is i.e. power is a non unit fraction	U235	
Use fractional indices in calculations	U235, U694	
Solve complex problems with indices	U235, U694	
Simplifying surds	U338	
Multiplying surds	U633	
Adding and subtracting with surds	U872	
Finding perimeters of shapes with surds	U872	
Finding areas of shapes with surds	U633	
Solve problems with surds	U633, U872	
Find data that shows direct proportion	M478	
Find the equation using ratio tables	M472	
Simplify ratios with fractions and decimals	M267	
Set up equations to show direct proportions and solve problems	M472	

Solve problems involving direct proportion to x squared and x cubed	M472	
Understand inverse proportions from ratio tables		
Set up an equation to show inverse proportions	M665	
Express a multiplicative relationship between two quantities as a ratio or a fraction, e.g. when A:B are in the ratio 3:5, A is of B. When 4a = 7b, then a = or a:b is 7:4;	U676	
Solve proportion problems using the unitary method	M478	
Work out which product offers best value and consider rates of pay	M681	
Work out the multiplier for repeated proportional change as a single decimal number	U671	
Represent repeated proportional change using a multiplier raised to a power, use this to solve problems involving compound interest and depreciation	U332	