

Year 11 Objective List – Higher HT1

Linear, Quadratic & other Graphs:

Objective	Sparx Task	
Use a table of values to plot a linear function (include horizontal/vertical lines)	U741	
Find the gradient of a line and use intercept to give an equation in the form $y=mx+c$	U741 U477	
Draw and interpret parallel/perpendicular functions	U898	
Find length and midpoint of a line segment	U933	
Find the equations of a line when given two coordinates	U858	
Plot straight line graphs from real life situations	U638	
Plot dist/time and vel/time graphs and interpret gradients	U562 U462	
Recognise linear, quadratic, cubic, reciprocal and circle graphs from shapes and functions	U593 U229 U980 U989	
Generate coordinates and plot quadratic graphs	U989	
Understand features of quadratic graphs and estimate solutions	U667	
Draw graphs of simple cubics	U980	
Draw reciprocal graph and circle centred on the origin		

Further Formulae & Algebraic Expressions

Objective	Sparx Task	
1. Rationalise the denominator of a surd.	U633 U338 U872	

	U499 U707 U281	
2.Simplify algebraic fractions.	U437 U103 U294	
3.Perform operations with algebraic fractions	U685 U457 U824	
4.Solve equations arising from algebraic fractions		
5.Rearrange a formula in cases where the subject appears more than once.	U556	
6.Rearrange a formula where the variables are in the denominators of fractions	U413 U573	
7.Solve algebraic proof questions that involve consecutive integers (n, n+1), squares, odd/ even integers etc.	U582	
8.Understand function notation. Carry out substitutions and solve equations that involve functions	U637	
9.Find composite functions	U448	
10.Find the inverse of a function	U996	