

KS4 Learning Journey

GCSE Foundation Tier – Year 10 Learning Cycle 2

Please watch the video on www.corbettmaths.com for each topic.

Quadratics	Video number
Expand double brackets	14
Factorise a quadratic expression into double brackets	118
Factorise a difference of 2 squares	120
Solve quadratic equations by factorising	266
Solve quadratic equations which need rearranging, by factorising	266
Plot graphs of quadratic functions	264
Find the approximate solutions of a quadratic equation using a graph	267c

Probability	Video number
Systematically list items using lists, tables and diagrams	253
Use tables, two-way tables or frequency trees to calculate probabilities	319,376
Calculated expected outcomes of future events	248
Relate relative frequency to theoretical probability, using appropriate language and the 0 to 1 probability scale	248
Understand that probabilities add to 1 (for exhaustive mutually exclusive events)	245
Understand that increasing the number of trials of an experiment will give a better approximation to the theoretical probability value	
Construct sample space diagrams (possibility spaces) for two events and use it to calculate theoretical probabilities	246

Formulae and Equations	Video number
Substitute both positive and negative numbers into formulae including scientific formulae	20
Rearrange formulae to change the subject	7
Solve linear equations in one unknown algebraically, including brackets and unknowns on both sides	113

Circles	Video number
Identify circle definitions and properties	61
Know the formulae for circumference and area of a circle	59, 60
Calculate the perimeter of shapes, including circles	62

Units	Video number
Use standard units of mass, length, time, money and other measures	349a,b,c
Use standard units and related concepts to include length area, volume, capacity, mass	349
Use compound units including density, pressure, speed, rates of pay and unit pricing	384,385

KS4 Glossary
GCSE Foundation Tier – Year 10 Learning Cycle 2

Quadratics	
Quadratic	A quadratic equation is one that can be expressed in the form $ax^2 + bx + c$, where a, b and c are constants.

Probability	
Relative Frequency	How often something happens divided by the number of trials.

Formulae and Equations	
Formula	A formula is an expression into which the values of one or more variables can be substituted to evaluate a quantity.

Circles	
Pi	Pi is the ratio of the circumference of a circle to its diameter.
Sector	A sector is part of a circle, formed by drawing two lines from the centre to the circumference.

Units	
Density	The degree of compactness of a substance, calculated by mass divided by volume.