

KS4 Learning Journey

GCSE Higher Tier – Year 10 Learning Cycle 3

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

Percentages	Video number
Solve problems involving reverse percentages	240
Solve growth and decay problems including compound interest	236

Straight Line Graphs	Video number
Plot graphs of equations that are straight-line graphs using tables of values, gradient-intercept method or the cover-up method	186
Solve geometrical problems on coordinate axes	
Find the equation of the line through two given points	195
Find the equation of the line through one point with a given gradient	194
Use the form $y = mx + c$ to identify perpendicular lines	197
Identify and interpret gradients and intercepts of linear functions graphically and algebraically	189
Recognise, sketch and interpret graphs of linear functions	187
Interpret the gradient of a straight-line graph as a rate of change	

Sequences	Video number
Continue a sequence	286
Generate terms of a sequence using the n th term	288
Continue a picture pattern	290
Recognise and use sequences of triangular, square and cube numbers and arithmetic progressions	287a
Recognise and use Fibonacci-type sequences, quadratic sequences and geometric progressions	
Find the n th term of linear sequences	288
Find the n th term of quadratic sequences	388

Transformations	Video number
Be able to reflect shapes and describe a given reflection (i.e. give a line of reflection)	272,273
Be able to rotate shapes and describe a given rotation (i.e. give the centre of rotation, angle and direction)	275
Be able to translate shapes and describe a given translation using a vector	325,326
Be able to enlarge a shape, using positive integer scale factors	104
Be able to enlarge a shape, using negative integer scale factors	108
Be able to enlarge a shape, using fractional scale factors	107
Describe the effects of combining transformation including translations with column vectors	326,273,275, 105

Simultaneous Equations	Video number
Solve two linear simultaneous equations in two variables algebraically	295
Find approximate solutions of a pair of simultaneous equations using a graph	297

KS4 Glossary

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Percentages

Straight Line Graphs

Gradient	The gradient is the change in y over the change in x , or how steep a line is.
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Sequences

Triangular Numbers	A triangular number is the result of adding consecutive natural numbers together, starting at 1.
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Transformations

Scale Factor	The scale factor of an enlargement is the ratio of the lengths in the image to the lengths in the original object.
Symmetry	Symmetry is when two or more parts of a shape are identical after a flip, slide or turn.
Translate	If we translate a shape, we move it a set distance and direction, without making any other changes to the shape itself.
Vector	A vector is a quantity that has magnitude and direction.

Simultaneous Equations

Simultaneous Equations	Simultaneous equations are a system of equations with multiple unknowns which are to be found.
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