A-LEVEL FURTHER MATHS KEY MATHEMATICAL VOCABULARY

Core Pure 1								Core Pure 2				
Complex Numbers 1	Matrices	Complex Numbers Part 2	Series	Algebra & Functions	Proof	Vectors	Calculus	Complex Numbers	Hyperbolic Functions	Polar Coordinates	Further Algebra and Functions	Further Calculus
Conjugate	Array	Conjugate	Sigma notation	Quadratic	Mathematical induction	Vector	Rotation	Conjugate	Hyperbolic	Polar	Series	Improper
real part	dimension	real part	series	cubic	general statement	scalar	solid of revolution	real part	sinh	Cartesian	sigma	undefined
imaginary part	rows	imaginary part	sum	quartic	basis	magnitude	volume of revolution	imaginary part	cosh	coordinates	differences	continuous
complex conjugate	columns	complex conjugate	arithmetic series	polynomial	assumption	modulus	bounded area	complex conjugate	tanh	convert	sum	mean
root	elements	root	geometric series	coefficient	inductive	direction	arc	nth root	domain	parallel	term	integrate
discriminant	scalar	discriminant	binomial series	degree	conclusion	vector quantity	cubic units	distinct root	range	point	general term	partial
Argand diagram	square matrices	Argand diagram	integer	root	integer	scalar quantity	parameter	discriminant	exponential	enclosed	partial fraction	fraction
Cartesian coordinates	commutative	Cartesian coordinates	natural numbers	complex conjugate	summation	displacement vector	Cartesian equation	Argand diagram	function	area	function	radical
vector	associative	vector		degree	divisible	zero vector		Cartesian coordinates	radical		Maclaurin	inverse
magnitude	transformation	magnitude		Vieta's formulas	matrix	unit vector		vector			range	
modulus	rotation	modulus				base vector		magnitude			power	
argument	translation	argument				component		modulus				
principal argument	reflection	principal argument				equal vectors		argument				
radians	enlargement	radians				localised vector		principal argument				
modulus-argument form	linear transformation	modulus-argument form				free vector		radians				
polynomial	scale factor	polynomial				resultant		modulus-argument form				
coefficient	vector	coefficient				triangle law		polynomial				
quadratic	position vector	quadratic				parallelogram law		coefficient				
quartic	object	quartic				position vector		quadratic				
cubic	image	cubic				vector equation		quartic				
locus	identity	complex conjugate pair				Cartesian equation		cubic				
loci	determinant	locus				scalar product		de Moivre				
	inverse	loci.				dot product		unity				
	transpose					collinear		exponential				
	symmetric					skew		multiple angle				
	zero matrix					concurrent						
	minor					direction ratio						
	cofactor					perpendicular						
	singular					Pythagoras' Theorem						
	non-singular											
	three-dimensional space											
	line											
	plane											
	parameter											
	vector equation											
	Cartesian equation											
	simultaneous equations											
	invariant point											
	invariant line											
	sheaf											
	prism											

	Decision 1					Decision 2					
Differential Equations	General Algorithms	Algorithms on Graphs	Route Inspection	Linear Programming	Critical Path Analysis	Allocation	Game Theory	Recurrence Relations	Transportation	Flows	Dynamic Programming
Integrating factor	Algorithm	Minimum spanning tree	Traversable	Decision variables	Activities	Allocation	Two- person	Recurrence relation	Supply (points)	Capacitated directed networks/graphs or capacitated digraphs	Bellman's principle of optimality
complementary	flow chart	Kruskal's algorithm	odd valency	constraints	events	assignment	zero-sum	iteration	demand (points)	capacity	stage
function	size	Prim's algorithm	Eulerian	objective function	precedence table	cost matrix	pay-off matrix	first-order	source	source	state
differential	order	network	Semi-Eulerian	slack variables	activity networks	row/column reduction	play safe	second-order	destination	sink	action
equation	efficiency	distance matrix	minimum weight	Simplex method	source node	unbalanced problem	stable solution (saddle point)	linear	unit cost	flow	destination
order	loops	Dijkstra's algorithm	upper bound	surplus variables	sink node	element	equilibrium	homogeneous	north-west corner method	feasibility condition	value
auxiliary	bubble sort	working values	lower bound	artificial variables	dummies	Hungarian algorithm	mixed strategy	non-homogeneous	initial solution	conservation condition	minimax
discriminant	iteration	final values	nearest neighbour algorithm	basic and non-basic variables	earliest event times	dummy location	value of the game	general solution	balanced problems	saturated	maximin
general	quick sort	directed network	complete network	Simplex tableau	latest event times	incomplete data	dominance	particular solution	unbalanced problems	cut	
particular	pivot	source vertex	triangle inequality	feasible solution	critical path	minimisation (cost) allocation	Simplex	complementary function	dummy location	initial flow	
	mid-point	destination vertex	walk	feasible region	critical activities	maximisation (profit) allocation		auxiliary equation	degenerate solutions	labelling procedure	
	bin packing	distance table	tour	optimal solution	total float				shadow costs	flow-augmenting route	
	first-fit	sequence table		pivotal column	Gantt (cascade) chart				improvement indices	backflow	
	first-fit decreasing	Floyd's algorithm		pivotal row	resource histogram				stepping-stone method	maximum flow-minimum cut theorem	
	optimal solutions			pivot	scheduling				entering cell	supersource	
	vertices			optimality condition	lower bound				exiting cell	supersink	
	nodes			big-M					optimal solution		
	edges								decision variables		
	arcs								objective function		
	graph								constraints		
	network										
	path										
	cycle										
	Hamiltonian cycle										
	Eulerian graph										
	semi-Eulerian graph										
	Eulerian cycle										
	subgraph										
	weighted graph										
	connected graph										
	simple graph										
	complete graph										
	degree										
	valency										
	digraph										
	tree										
	spanning tree										
	k notation										
	isomorphic										
	planar										

Decision Analysis
Decision tree
expected monetary value (EMV)
chance node
decision node
end pay-off