

## English - Welsh

English	Welsh
abelian	abel
acceleration	cyflymiad
addition	adiad
adjacency matrix	matrics cyfagosrwydd
adjoint	atgyd
adjugate	atgydiol
ambient	amgylchol
analytic	analytig
ansatz	ansatz
antiderivative	gwrthddeilliad
antipode	cyferbwynt
annulus	anwlws
approximate	brasamcanu
arbitrary	mymppwyol
argument	arg
articulation point	pwynt cynaniad
associative	cysylltiadol
associativity	cysylltiadedd
augmented matrix	matrics estynedig
autonomous	awtonomaidd
auxiliary equation	hafaliad ategol
axiom	gwireb
backtracking	gwrthgilio
basis	sail
bijjective	deusaethol
bilinear	deulinol
binary operation	gweithrediad deuaid
bipartite	deurannol
bisect	hanerydd
bound	arffin
boundary	ffin
boundary conditions	amodau ffin
bounded above	ffinedig uchod
bounded below	ffinedig isod
bracket	cromfach
branch and bound	dull canghenu ac arffiniau
breadth	lled
candidate solution	datrysiad ymgais
cardinality	prifoledd
cartesian form	ffurf cartesaid
chinese postman problem	problem y dyn bost tsieineaidd

English	Welsh
circuit	cylchred
circumscribed circle	amgylch
closedness	caeoldeb
closure	caefa
coefficient	cyfernod
collinear	unllin
combinatorial	cyfuniadol
complex conjugate	cyfiau cymhlyg
commutative	cymudol
commutativity	cymudedd
complement	cyflenwad
complex differentiable	differadwy cymhlyg
complex numbers	rhifau cymhlyg
composite	cyfansawdd
concave	ceugrwm
concurrent	cytgroes
congruency	cyfathiant
connected	cysylltiedig
connectivity	cysylltedd
conservative	cadwrol
continuous	di-dor
continuously differentiable	differadwy yn ddi-dor
contour integral	integryn amlin
contradiction	gwrthddyweddiad
converge	cydgyfeirio
convergent	cydgyfeiriol
convex	amgrwm
convexity	amgrymedd
coordinate vector	fector cyfesurynnau
correlation	cydbethyniad
cumulative distribution function	ffwythiant dosraniad cronus
cycle	cylchlwybr
cylindrical	silindrog
debug	datbygio
decent method	dull disgyniad
decomposition	dadelfeniad
decreasing	lleihaol
deformation	anffurfiad
degenerate	dirywiedig
degree	gradd
delimit	amffinio

English	Welsh
denominator	enwadur
depth	dyfnder
derivative	deilliad
diagonal	croeslin
diagonalisability	croeslinedd
diagonalisable	croeslinadwy
differentiability	differadwyedd
differentiable	differadwy
differential-difference equation	hafaliad gwahaniaeth-differol
dilation	ymlediad
dimension	dimensiwn
directed graph	graff cyfeiriedig
directional derivative	deilliad cyfeiriadol
discrete	arwahanol
disjoint set	set digyswllt
distributivity	dosbarthedd
diverge	dargyfeirio
divergent	dargyfeiriol
divisible	rhanadwy
domain	parth
domain of integration	parth integru
dynamic programming	rhaglennu deinamig
edge-weighted graph	graff ymyl-pwysedig
ellipse	elips
endomorphism	endomorffedd
endpoint	diweddbwynt
energy conservation	cadwraeth egni
entire	cyfan
equality	hafaidd
equilibrium	ecwilibriwm
equivalence relation	perthynas cywerthedd
error function	ffwythiant cyfeiliornad
espression	mynegiad
estimation lemma	lemma amcangyfrif
even function	eil-ffwythiant
extrema	eithafion
factorisation	ffactoriad
feasible	dichonadwy
field	maes
finite	meidraidd
function	ffwythiant

English	Welsh
functional	fwythiannol
fundamental theorem of calculus	theorem sylfaenol calcwlws
generating function	ffwythiant generadu
geodesic	geodesig
global optimum	optimwm eang
group	grŵp
heuristic	dull hewristig
holomorphic	holomorffig
homogeneous	homogenaidd
homomorphism	homomorffedd
identity	unfathiant
identity matrix	matrics unfathol
implicit	ymhlyg
improper integral	integryn afreolaidd
incident (graph theory)	trawol
increasing	cynyddol
indentation	mewnoliadau
indicial equation	hafaliad indecsol
infinitesimal	gorfychan
inhomogeneous	anhomogenaidd
injective	mewnsaethol
inner product	lluoswm mewnlol
inscribe	mewnysgrifio
inscribed circle	mewngylch
integer (adjective)	cyfanrifol
integer (noun)	cyfanrif
integrable	integradwy
integrating factor	ffactor integru
integration by parts	integru fesul rhan
intermediate value theorem	theorem y gwerth canolraddol
intersection	croestoriad
intractable	anhydrin
intractability	anhydrinedd
inverse	gwrthdro
isometry	isometreg
isomorphic	isomorffig
joint distribution	cyd-ddosraniad
kernal	cnewyllyn
kurtosis	cwrtosis
length	hyd
limit	terfan

English	Welsh
line segment	segment llinell
linear combination	cyfuniad llinol
linear dependence	dibyniaeth linol
linear independence	annibyniaeth linol
linear programming	rhaglennu llinol
linear transformation	trawsffurfiant llinol
linearise	llinelloli
linearly dependent	llinol ddibynnol
linearly independent	llinol annibynnol
local optimum	optimwm lleol
logistic	logistaidd
loop (graph theory)	dolen
lower bound	arffin isaf
lune	lŵn
mapping	mapiad
marginal	ymylol
markov chain	cadwyn markov
markov decision process	proses benderfynu markov
matching	cydweddiad
matrix	matrics
maximum	macsimwm
maximum point	uchafbwynt
median	canolrif
median (triangles)	llin canol
meromorphic	meromorffig
metric space	gofod metrig
minimum	minimwm
minimum point	isafbwynt
minor	lleddf
monotone	monoton
multi-objective	amlamcan
multigraph	aml-graff
multiplicity	lluosogrwydd
multiplier	lluosydd
multiset	aml-set
mutually exclusive	cydanghynhwysol
n-periodic	n-cyfnodol
n-tuple	n-blyg
negation	negyddiad
nilpotent	nilpotent
non-decreasing	anleihaol

English	Welsh
non-degenerate	annirywiedig
non-empty	anwag
non-increasing	digynnydd
non-negative	annegatif
non-trivial	annistadl
nonlinear	aflinol
nullity	dirymiad
numerator	rhifiadur
odd function	od-ffwythiant
operation	gweithrediad
operational research	ymchwil weithrediadol
operations	gweithrediadau
ordered pairs	parau trefnedig
ordinary point	pwynt arferol
orientation-preserving	cadw-cyfeiriadaeth
orientation-reversing	gwrthdroi-cyfeiriadaeth
origin	tarddbwynt
parameterisation	paramedriad
parameterise	paramedreiddiwrch
partial derivative	deilliad rhannol
partition	ymraniad
path	llwybr
percentile	canradd
permutations	trynewidion
phase curve	cromlin gwedd
phase diagram	diagram gwedd
piecewise	fesul rhan
plane	plân
polar form	ffurf pegynlinol
pole	pegwn
power set	set pŵer
precision	trachywriedd
prime number	rhif cysefin
principal value	penrhif
principle argument	prif arg
probability density function	ffwythiant dwysedd tebygolrwydd
probability mass function	ffwythiant màs tebygolrwydd
pseudo-random number	ffug-haprif
quadrant	pedrant
quantifier	meintiolydd
quantile	cwantel

English	Welsh
quartile	chwartel
queueing	ciwio
quotient	cyniferydd
radical	radical
random decent	hap-ddisgyniad
random event	hapddigwyddiad
random number	haprif
random variable	hapnewidyn
randomness	haprwydd
range	amrediad
rank	ranc
rational numbers	rhifau cymarebol
real numbers	rhifau real
reciprocal	cilydd
recurrence relation	perthynas ailadroddadwy
recursion	dychweliad
recursive	dychweliadol
reduced row echelon form	ffurf echelon rhes gostyngol
reflexive	ymatblyg
reflexivity	ymatblygedd
regular singular point	hynodyn rheolaidd
residue	gwaddod
resource allocation problem	problem dosbarthu adnoddau
reverse triangle inequality	anhafaledd triongl gwrthwyneb
roots of unity	gwreiddiau un
rural postman problem	problem y dyn bost gwledig
saddle point	pwyt ffurfdro
sandwich theorem	theorem gwasgu
scalar multiplication	lluosiad sgalar
semi-axis	lled-echelin
separable differential equation	hafaliad differol gwahanadwy
sequence	dilyniant
series expansion	ehangiad cyfres
sesquilinear	sescwilinol
set	set
simply connected region	rhanbarth cysylltiedig syml
simulated annealing	ffug-anelio
simulation (object)	efelychiad
simulation (process)	efelychu
singular	hynod
singular point	hynodyn

English	Welsh
singularity	hynodyn
sink (graph theory)	suddfan
skew-symmetric	sgiw-gymesur
skewness	sgiwedd
smooth	llyfn
solution space	gofod datrysiadau
source (graph theory)	tarddle
span	rhychwant
spanning	rhychwantu
spanning tree	coeden rhychwantu
sparse	gwasgarog
spherical coordinates	cyfesurynnau sfferig
star centre	canol serennol
starlit region	rhanbarth seren oleuol
stationary point	pwyt arhosol
stochastic	stocastig
strong principle of induction	egwyddor gref anwythiad
subgroup	is-grŵp
subinterval	is-gyfwng
subset	is-set
subspace	is-ofod
subtraction	tynnu
summation	symiant
surface	arwyneb
surjective	arsaethol
symmetric matrix	matrics cymesur
tabu search	chwiliad tabŵ
tangent	tangiad
trace	olin
transcendental	trosgynnol
transform	trawsffurf
transitive	trosaidd
transitivity	transitiffiaeth
translation	trawsfudiad
transportation problem	problem trafndiaeth
transpose	trawsdododyn
transposition	trawsdodiad
triangle inequality	anhafaledd triongl
triangulation	triongiant
triple integral	integryn triphlyg
trivial	distadl

English	Welsh
truth table	gwirlen
turning point	trobwynt
unbounded	diarffin
union	uniad
unique	unigryw
unit circle	cylch uned
universal set	set gynhwysol
upper bound	arffin uchaf
upper triangular	trionglog uchaf
validation	dilysu
variable	newidyn
variation of constants	amrywio cysonion
vector	fector
vector space	gofod fector
verification	gwireddu
weight (multiplier)	pwysolyn
well defined	clir-ddifiniedig
with respect to	mewn perthynas â
zero	sero

## Cymraeg - Saesneg

Cymraeg	Saesneg
abel	abelian
adiad	addition
aflinol	nonlinear
amffinio	delimit
amgrwm	convex
amgrymedd	convexity
amgylch	circumscribed circle
amgylchol	ambient
aml-graff	multigraph
aml-set	multiset
amlamcan	multi-objective
amodau ffin	boundary conditions
amrediad	range
amrywio cysonion	variation of constants
analytig	analytic
anffurfiad	deformation
anhafaledd triongl	triangle inequality
anhafaledd triongl gwrthwyneb	reverse triangle inequality
anhomogenaidd	inhomogeneous
anhydryn	intractable
anhydrinedd	intractibility
anleihaol	non-decreasing
annegatif	non-negative
annibyniaeth linol	linear independence
annirywiedig	non-degenerate
annistadl	non-trivial
ansatz	ansatz
anwag	non-empty
anwlws	anulus
arffin	bound
arffin isaf	lower bound
arffin uchaf	upper bound
arg	argument
arsaethol	surjective
arwahanol	discrete
arwyneb	surface
atgyd	adjoint
atgydiol	adjugate
awtonomaidd	autonomous
brasamcanu	approximate
cadw-cyfeiriadaeth	orientation-preserving

Cymraeg	Saesneg
cadwraeth egni	energy conservation
cadwrol	conservative
cadwyn markov	markov chain
caefa	closure
caeoldeb	closedness
canol serennol	star centre
canolrif	median
canradd	percentile
ceugrwm	concave
chwartel	quartile
chwiliad tabŵ	tabu search
cilydd	reciprocal
ciwio	queueing
clir-ddiffiniedig	well defined
cnewyllyn	kernal
coeden rhychwantu	spanning tree
croeslin	diagonal
croeslinadwy	diagonalisable
croeslindedd	diagonalisability
croestoriad	intersection
cromfach	bracket
cromlin gwedd	phase curve
cwantel	quantile
cwrtosis	kurtosis
cyd-ddosraniad	joint distribution
cydanghynhwysol	mutually exclusive
cydbethyniad	correlation
cydgyfeirio	converge
cydgyfeiriol	convergent
cydweddiad	matching
cyfan	entire
cyfanrif	integer (noun)
cyfanrifol	integer (adjective)
cyfansawdd	composite
cyfathiant	congruency
cyferbwynt	antipode
cyfernod	coefficient
cyfesurynnau sfferig	spherical coordinates
cyfiau cymhlyg	complex conjugate
cyflenwad	complement
cyflymiad	acceleration

Cymraeg	Saesneg
cyfuniad llinol	linear combination
cyfuniadol	combinatorial
cylch uned	unit circle
cylchlwyr	cycle
cylchred	circuit
cymudedd	commutativity
cymudol	commutative
cyniferydd	quotient
cynyddol	increasing
cysylltedd	connectivity
cysylltiadedd	associativity
cysylltiadol	associative
cysylltiedig	connected
cytgroes	concurrent
dadelfeniad	decomposition
dargyfeirio	diverge
dargyfeiriol	divergent
datbygio	debug
datrysiad ymgais	candidate solution
deilliad	derivative
deilliad cyfeiriadol	directional derivative
deilliad rhannol	partial derivative
deulinol	bilinear
deurannol	bipartite
deusaethol	bijective
di-dor	continuous
diagram gwedd	phase diagram
diarffin	unbounded
dibyniaeth linol	linear dependence
dichonadwy	feasible
differadwy	differentiable
differadwy cymhlyg	complex differentiable
differadwy yn ddi-dor	continuously differentiable
differadwyedd	differentiability
digynnydd	non-increasing
dilyniant	sequence
dilysu	validation
dimensiwn	dimension
dirymiad	nullity
dirywiedig	degenerate
distadl	trivial

Cymraeg	Saesneg
diweddbywynt	endpoint
dolen	loop (graph theory)
dosbarthedd	distributivity
dull canghenu ac arffiniau	branch and bound
dull disgyniad	decant method
dull hewristig	heuristic
dychweliad	recursion
dychweliadol	recursive
dyfnder	depth
ecwilibriwm	equilibrium
efelychiad	simulation (object)
efelychu	simulation (process)
egwyddor gref anwythiad	strong principle of induction
ehangiad cyfres	series expansion
eil-ffwythiant	even function
eithafion	extrema
elips	ellipse
endomorfedd	endomorphism
enwadur	denominator
fector	vector
fector cyfesurynnau	coordinate vector
fesul rhan	piecewise
ffactor integru	integrating factor
ffactoriad	factorisation
ffin	boundary
ffinedig isod	bounded below
ffinedig uchod	bounded above
ffug-anelio	simulated annealing
ffug-haprif	pseudo-random number
ffurf cartesaid	cartesian form
ffurf echelon rhes gostyngol	reduced row echelon form
ffurf pegynlinol	polar form
ffwythiant	function
ffwythiant cyfeiliornad	error function
ffwythiant dosraniad cronos	cumulative distribution function
ffwythiant dwysedd tebygolrwydd	probability density function
ffwythiant generadu	generating function
ffwythiant mas tebygolrwydd	probability mass function
fwythiannol	functional
geodesig	geodesic
gofod datrysiadau	solution space

Cymraeg	Saesneg
gofod fector	vector space
gofod metrig	metric space
gorfychan	infinitesimal
gradd	degree
graff cyfeiriedig	directed graph
graff ymyl-pwysedig	edge-weighted graph
grŵp	group
gwaddod	residue
gwasgarog	sparse
gweithrediad	operation
gweithrediad deuaidd	binary operation
gweithrediadau	operations
gwireb	axiom
gwireddu	verification
gwirlen	truth table
gwreiddiau un	roots of unity
gwrthddeiliad	antiderivative
gwrthddywediad	contradiction
gwrthdro	inverse
gwrthdroi-cyfeiriadaeth	orientation-reversing
gwrthgilio	backtracking
hafaidd	equality
hafaliad ategol	auxiliary equation
hafaliad differol gwahanadwy	separable differential equation
hafaliad gwahaniaeth-differol	differential-difference equation
hafaliad indecsol	indicial equation
hanerydd	bisect
hap-ddisgyniad	random decent
hapddigwyddiad	random event
hapnewidyn	random variable
haprif	random number
haprwydd	randomness
holomorffig	holomorphic
homogenaidd	homogeneous
homomorffedd	homomorphism
hyd	length
hynod	singular
hynodyn	singularity
hynodyn	singular point
hynodyn rheolaidd	regular singular point
integradwy	integrable

Cymraeg	Saesneg
integru fesul rhan	integration by parts
integryn afreolaidd	improper integral
integryn amlin	contour integral
integryn triphlyg	triple integral
is-grŵp	subgroup
is-gyfwng	subinterval
is-ofod	subspace
is-set	subset
isafbwynt	minimum point
isometreg	isometry
isomorffig	isomorphic
lemma amcangyfrif	estimation lemma
lled	breadth
lled-echelin	semi-axis
lleddf	minor
lleihaol	decreasing
llin canol	median (triangles)
llinelloli	linearise
llinol annibynnol	linearly independent
llinol ddibynnol	linearly dependent
lluosiad sgalar	scalar multiplication
lluosogrwydd	multiplicity
lluoswm mewdol	inner product
lluosydd	multiplier
llwybr	path
llyfn	smooth
logistaidd	logistic
lŵn	lune
macsimwm	maximum
maes	field
mapiad	mapping
matrics	matrix
matrics cyfagosrwydd	adjacency matrix
matrics cymesur	symmetric matrix
matrics estynedig	augmented matrix
matrics unfathol	identity matrix
meidraidd	finite
meintiolydd	quantifier
meromorffig	meromorphic
mewn perthynas â	with respect to
mewngylch	inscribed circle



Cymraeg	Saesneg
mewnoliadau	indentation
mewnsaethol	injective
mewnysgrifio	inscribe
minimwm	minimum
monoton	monotone
mymrwyl	arbitrary
mynegiad	expression
n-blyg	n-tuple
n-cyfnodol	n-periodic
negyddiad	negation
newidyn	variable
nilpotent	nilpotent
od-ffwythiant	odd function
olin	trace
optimwm eang	global optimum
optimwm lleol	local optimum
paramedreiddiwdch	parameterise
parametriad	parameterisation
parau trefnedig	ordered pairs
parth	domain
parth integru	domain of integration
pedrant	quadrant
pegwn	pole
penrhif	principal value
perthynas ailadroddadwy	recurrence relation
perthynas cywerthedd	equivalence relation
plân	plane
prif arg	principle argument
prifoled	cardinality
problem dosbarthu adnoddau	resource allocation problem
problem trafndiaeth	transportation problem
problem y dyn bost gwledig	rural postman problem
problem y dyn bost tsieineaidd	chinese postman problem
proses benderfynu markov	markov decision process
pwyt arferol	ordinary point
pwyt arhosol	stationary point
pwyt cynaniad	articulation point
pwyt ffurfdro	saddle point
pwysolyn	weight (multiplier)
radical	radical
ranc	rank

Cymraeg	Saesneg
rhaglennu deinamig	dynamic programming
rhaglennu llinol	linear programming
rhanadwy	divisible
rhanbarth cysylltiedig syml	simply connected region
rhanbarth seren oleuol	starlit region
rhif cysefin	prime number
rhifau cymarebol	rational numbers
rhifau cymhlyg	complex numbers
rhifau real	real numbers
rhifiadur	numerator
rhychwant	span
rhychwantu	spanning
sail	basis
segment llinell	line segment
sero	zero
sesquilinol	sesquilinear
set	set
set digyswllt	disjoint set
set gynhwysol	universal set
set pŵer	power set
sgiw-gymesur	skew-symmetric
sgiwedd	skewness
silindrog	cylindrical
stocastig	stochastic
suddfan	sink (graph theory)
symiant	summation
tangiad	tangent
tarddbwynt	origin
tarddle	source (graph theory)
terfan	limit
theorem gwasgu	sandwich theorem
theorem sylfaenol calcwlws	fundamental theorem of calculus
theorem y gwerth canolraddol	intermediate value theorem
trachywriedd	precision
transitiffiaeth	transitivity
trawol	incident (graph theory)
trawsddodiad	transposition
trawsddodyn	transpose
trawsffurf	transform
trawsffurfiant llinol	linear transformation
trawsfudiad	translation

Cymraeg	Saesneg
triongiant	triangulation
trionglog uchaf	upper triangular
trobwynt	turning point
trosaid	transitive
trosgynnol	transcendental
trynewidion	permutations
tynnu	subtraction
uchafbwynt	maximum point
unfathiant	identity
uniad	union
unigryw	unique
unllin	collinear
ymatblyg	reflexive
ymatblygedd	reflexivity
ymchwil weithrediadol	operational research
ymhlyg	implicit
ymlediad	dilation
ymraniad	partition
ymylol	marginal