

Pangarau – Glossary

Maori	English
āe ka taea	possible
āe ka tino taea	certain
ā-hinengaro	mentally
ahu-2	2-dimensional
ahu-3	3-dimensional
āhua rite	semi-regular
āhuahanga	geometry
āhuatanga hangarite me ngā āhuatanga koki	symmetry and angle properties
āhuatanga kōhure	distinctive feature
āhuatanga koki	angle properties
āhuatanga kua whakaritea	structured situation
āhuatanga motuhake	special properties
āhuatanga pūmau	invariant properties
āhuatanga tāpua	significant features
āhukahuka	recognise
ahunga	bearing
ahunga	direction
aka	strand
ake	original
akitu	vertex
akitu	vertices
ānau; kōpiko [IC]	curve
anga	direction
aorangi	planets
āputa	differentiation
āputa	discontinuity
ariā matua	basic term
aro matawai	assessment
aronga kē	different perspective
aronga kē	non-standard
aronga whānui	conventional
aronga whānui	standard
arotake	evaluate
āta whiriwhiri	discuss
ataata	reflections
ātārangi	shadows
auau	frequency
aukati	limitations

āwhata	scale
āwhata	scale map
āwhata	scales
e kore e taea	impossible
hanga tauira	generate a pattern
hanga whakaputa tau tupurangi	random number generator
hāngai	perpendicular
hāngai pātapa	normals
hangarite	symmetric
hangarite	symmetry
hangarite whakaata	reflection symmetry
hanumi	mixed
hapa	limitations
hāpono	prove
hārakiraki	unreliability
hātepe	algorithm
haukoti	intercepts
haukotitia	intersected
hauroki	diagonal
haurua	half
hautanga taurangi	algebraic fractions
hautau	fraction
hautoru	third
hauwhātanga	quartiles
he taurua	even numbers
hei auau wā roa	as long-run frequency
hiato	composite
hikuwaru	irregular
hoahoa	design
hoahoa āwhata	isometric drawing
hoahoa āwhata	scale drawing
hoahoa pere	arrow diagram
hoahoa rākau	tree diagram
hohe-ā-ringa	activity
hohe-ā-ringa	practical activities
hononga	relations
hononga	relationships
hononga öpaki	informal relation
hononga öpaki	informal relationships
hononga taurangi	relationships between variables
hopanga tüwaenga	practical problems
höpara	investigate

hōpara tupurangi	random survey
hōpara waiaro	attitude survey
hōparatanga	investigation
horahanga	area
horahanga	spread
horopaki	context
horopaki pāpori	social context
horopaki whitake	practical contexts
hua	outcome
huānga	categories
huānga	elements
huanui	locus
huarahi nahanaha	systematic approach
huarere	weather
huarewa	upper echelons
huarua	binomial
huatau	opinions
huinga	set
huinga rapanga tairite	set of similar problems
huinga raraunga	categories
huinga raraunga	data set
huri kōaro	reciprocal function
hurihanga	rotation
hurihuri	rotation
i roto i te wā	over time
ia mauki	trends
ine ahūwaenga	measures of central tendency
ine mahora	standard deviation
ine raraunga e tika ana	appropriate data measures
ine tātoro	radian measure
inekoki	protactor
inenga ōrite	equivalence
inenga raraunga	data measurement
inenga roa	measurements of length
ka taea te mahi	constructed
ka tino taea	most likely
kāhui tau-toru	triples
kahupeka	linoleum
kāngarere	cornflakes
kāpehu	compass
katoa	whole
kaupapa taiao	environmental issues

kauwhata	bar graph
kauwhata	dot plot
kauwhata	graph
kauwhata ira	dot graph
kauwhata kauamo	box and whisker graph
kauwhata marara	scatter diagram
kauwhata marara	scatter plot
kauwhata porohita	pie graphs
kauwhata pou hiato	composite bar graph
kauwhata pouhere	histogram
kauwhata rau-tō	stem and leaf graph
kauwhata tāhei	strip graph
kauwhata whakaahua	pictographs
kia hāngai ai te āhua ki tērā i whakaritea	to specified requirements
kīanga	expression
kīanga	sequence
kīanga pākoki	trigonometrical expression
kīanga taurangi	algebraic expression
kimi pārōnaki kōaro	anti-differentiation
kimi pāwhaitua	integration
kimi tau waenga	averaging
kimi-ā-kanohi	find by inspection
kirihou	plastic
kītanga	capacity
koanga mata whaiaro	sense of personal achievement
kōaro	anti-clockwise
kōaro kē	anti-clockwise
koeko	cones
koeko	stalagmite
koeko tapatoru	pyramid
koeko tapatoru	triangular-based pyramid
kōhure	prominent
koki hāngai	right angled
koki o roto, o waho	interior and exterior angles
kopi	doubled
kōrero tāpiri	accompanying information
korowai	tessellation
korowai rite	regular tessellation
kotiti	uncertainty
kōwhiri tīpako	sample selection
mahana	temperature

mahere äwhata	scale map
mahi whaitake	practical work
mānihi	bias
manunu	piece-wise
mārō	fathom
mataono	cube
mataono	cuboids
matapae	discuss
matapae	predict
matapae	prediction
matapaki	discuss
matapihi whaikano	stained-glass window
matarau	polyhedron
matatiki	short-term
matatiki whai tikanga	reference sources
matawā	watch
mati	digit
mati tāpua	significant figures
mati whaiira	decimal place
matirua	2-digit
matitoru	3-digit
mauki	long-term
me paku whakarerekē	make adjustments
meka	fact
meka matua	basic fact
meka whakarau matua	basic multiplication facts
mita pūtoru	cubic metre
mita-rau pūtoru	cubic centimetre
mita-tekau pūtoru	cubic decimetre
mōkito	minimum
mokowā	space
motupae koeko	conic section
mowaho	outlier
mü tōrere	traditional game similar to draughts
mutu-kore	continuing
mutu-kore	infinite
mutu-mārika	finite
nahanaha	systematic
nekehanga	translation
nekenga	movement
ngā hōpara tauanga	statistical investigation
ngao	essence/chi

örau	percentage
örite	equivalence
orotau	understanding
otinga	answer
otinga	results
otinga o tētahi tīpako	sample results
öwehe	proportional
öwehenga	proportion
öwehenga	ratio
öwehenga pākoki	trigonometric ratio
öwehenga pākoki	trigonometrical ratio
öwehenga tairite	equivalent ratio
pae	perimeter
pae hapa	confidence intervals (margins of error)
paenga	perimeter
paetata	local
paheko	operation
paheko matua	basic operation
paheko tau	number operation
pakimaero	fiction
pakitau	number story
pākoki	trigonometric
pākū	porridge
pānga	function
pānga	relationship
pānga	relevance
pānga kōaro	inverse function
pānga rārangi	linear function
pānga rōnaki	gradient function
pānga tapeke	cumulative effect
pānga taupū	exponential function
pānga whakarūnā	exponential function
panoni	transformation
panoni taurangi	algebraic transformation
papa raraunga taurangi-rau	tables of multi-variate data
pāpāho	media
papanga	materials
papangarua	sewing fabric
pāpātanga	rate
pāpātanga o te whiti	rate of change
pāpātanga taupū	exponential rate
papatau	table

papatau auau	frequency table
papatipu	mass
papatipu	object
papatipu	solid object
pāpono	event
pāpono tāuke, motuhake hoki	exclusive and independent events
pāpono whakataua	imaginary events
parahau	justify
pārōnaki	differentiation
pātapa	tangent
pātapa porohita	tangents to a circle
patuhuakita	disinfectant
pāwhaitua	integration
penapena	thrifty
pepa tukutuku	grid paper
pere	vector
pewa	arc
pikinga utu	inflation
poi	sphere
poro	prism
porohita	circle
porohita weherua	semi-circle
poronga uara tū	place value blocks
pororapa	ellipse
pū	letter
pū	power
pūāhua	discuss situations
pūāhua	situation
pūāhua ko ōna tūponotanga e taea ana te matapae	situations that give rise to predictable probabilities
pūāhua tūturu	physical situation
pūāhua tūturu	real situation
pūāhua whaitake	everyday situations
pūāhua whaitake	practical situation
pūāhua whakamātau	experimental situation
pūmanawa	computer software
pūmau	invariant
pūnaha	system
pūnaha ngahuru	metric systems
pūnaha tau	number system
pūnaha taunga tau	integer co-ordinate system
pūnga	centre

pūoro	music
pūranga	deck
pūrere ine	measuring devices
pūrere whārite	balance
pūrongo	report
pūrua	quadratic
pūrua	squaring
pūtahitanga	convergence
pūtaka rua	square roots
pūtanga	exponential
pūtoro	radius
pūwāhi	point
pūwerewere	hyperbola
rahinga	quantity
rahinga papa	amount of flooring
rangahautanga waiaro	attitude survey
rangitahi	long-term
rangitahi	short-term
rango	cylinder
rapanga	problem
rapanga paki	story problems
rapanga tūturu	simulated problems
rapanga whaitake	practical problems
rapanga whakarite	comparison problems
rāpoi	cluster
rārangi haukoti	intercept of lines
rārangi kai	menu
rārangi pātata	asymptote
rārangi takawā	timeline
rārangi tau	number line
rārangi weherua hāngai	mediator
raraunga	data
raraunga ake	raw data
raraunga hāngai	appropriate data
raraunga kounga	qualitative data
raraunga tapeke raupapa houanga	time series data
raraunga tapeke raupapa houanga māmā	simple time-series data
raraunga tau mowaho	discrete numeric data
raraunga tau mowaho, tau whaiwhai	discrete and continuous numeric data
raraunga tūturu	real data
rauara	network
rauata	overhead projector

raumata	net
raupapa	sequence
raupapa	sequential
raupapa	spatial sequence
raupapa pāpono	sequence of events
raupapa pūrua	quadratic sequence
raupapa tāpiri	arithmetic or geometric sequence or series
raupapa tau	number series
rauru	ruler
rautaki	strategy
rawhi	clothes pegs
rerenga tau	number sentence
ringarua	analogue
ripanga	spreadsheet
rita-mano	millilitre
rohe wā	time zones
rōnaki	gradient
rōnaki	slope
rōrahi	volume
rōrahi mataono	volumes of cuboids
tā	sketch
tāhiko-kore	non-electronic
tāhoro hinunuku	oil spillage
taiapa	bracket
takai tākoha	gift-wrapping
takanga o te wā	passage of time
takatātai	abacus
tāke hokohoko	GST
takea	based on
takenga	source
takotoranga	position
tānga ngahuru	standard form
tānui	mode
taonga	object
taonga tūtahi	whole object
tāpae whakaaro	make conjectures
tāpae whakaaro	make statements
tāpaetanga kōrero	assertion
tāpaetanga kōrero	conjecture
taparara	trapezia
taparau	polygon

taparau rite	regular polygon
tapatoru (hikuwaru) [??]	scalene
tapatoru waerite	isocleles triangle
tapawhā hāngai kōura	golden rectangle
tapawhā mīharo	amazing square
tapawhā rite	square
tapawhā whakarara	parallelograms
tapawhā-rima	pentominoes
tapeke	arithmetic or geometric sequence or series
tapeke	sum
tapeke	total
tapeke raupapa	series
tapeke raupapa houanga	conventional time series
tapeke raupapa houanga	time series
tāpua	significant
taputapu	instrument
tāra	note
tarepa	surplus
tāruarua	repeating
tātai	calculate
tātai tauanga tīpako	calculate sample statistics
tātaitai	calculator
tātaitanga	calculation
tātaitanga tango	calculations involving substration
tātaitanga tāpiri	calculations involving addition
tātari	analyse
tātari	evaluate
tatau-ā-kākā	rote count
tau hiato	complex numbers
tau mowaho	discrete number
tau noa	ordinary form
tau oti	whole number
tau oti matirua	two-digit whole numbers
tau pū	absolute numbers
tau pū huri kōaro	semi-log
tau pū kōaro	log-log
tau rahi	scale factor
tau rahi tōraro	negative scale factors
tau tānui	mode
tau toharite	mean
tau toharite	sample means
tau toharite taupori	population mean

tau tongi	figurate numbers
tau tōpū	integers
tau tōraro	negative number
tau tōrunga	positive integer
tau waenga	median
tau whakahau	rational numbers
tau-ā-ira	decimal
tau-ā-ira	decimal number
tau-ā-ira	decimal points
tauhokohoko	stall
tauirā	formulae
tauirā	model
tauirā	pattern
tauirā āhuahanga	geometric pattern
tauirā āhuahanga tāruarua	repeating geometric patterns
tauirā hangarite huri	rotational symmetry
tauirā pāngarau	mathematical formulae
tauirā rārangi	linear number patterns
tauirā rārangi	linear patterns
tauirā raupapa	sequential pattern
tauirā tau	number patterns
tauirā taurangi	algebraic pattern
tauirā whārite	equation formula
tauirā whārite pārōnaki	differential equation model
taukehe	odd numbers
taunga	co-ordinate
taunga kauwhata	rectangular co-ordinates
taunga pākoki	polar co-ordinates
taupori	population
taupū	exponent
taurangi	variables
taurangi tairite	like terms
taurangi tau oti	whole number variables
taurangi whai tikanga	variable of interest
taurangi-rua	bi-variate
taurangitanga houanga	time-related variation
taurangitanga houanga	variation over time
taurangitanga kē	variations of variables
taurangitanga taupori i roto i te wā	changes in populations over time
taurangitanga tukanga mutu-kore i roto i te wā	variations over time in continuous processes
taurea pātahi	common multiples

taurerewa	inconclusive
taurite	corresponding
tauroto	co-interior
tautuhi	identify
tautuhi	specify
tauwehe	factor theorem
tauwhāinga	board game
tauwhāinga	games
tauwhāinga whai tūponotanga	games of chance
tauwhata	points on scale
tauwhiti	alternate
tawhā taupori	population parameters
tawhera	sheet
te uara mati	face value
te uara tapeke	total value
teitei	altitude
teka	dart
tepe	limit
tērā e kore e taea	least likely
tiawhe ararau	orienteeing
tihi	maximum
tikanga	methodology
tikanga kauwhata	graphical technique
tikanga tau	numerical methods
tikanga whakaraupapa paheko	conventions for the order of operations
tikanga whakauru	substitution rule
tīpako	sample
tiro tiro	check
tītaha	skewed
tī tiro ararau	reflect critically
tohatoha rahinga	share quantities
tohu	symbol
tohu whakaatu	aspects
tohu whakarite	symbols of comparison
tōpū, pāwhaitua	integral
tōpūtanga	sum
tōpūtanga moni	sum of money
tōpū-tau-ā-ira	decimal integers
tōrino	spiral
tōrino ā-nuku	spirals found in nature
tōrite	inequation

torotoro-ā-pāngarau	mathematical exploration
tōrunga	positive
tuaka	axis
tuanaki	calculus
tuari tihirua	bi-modal
tuaritanga huarua	binomial distribution
tūaritanga māori	normal distribution
tūaritanga māori pūtahi	standard normal form
tuaritanga raraunga	data distribution
tuhi	draw
tukutahi	simultaneous
tukutuku	grids
tukutuku	plane
tukutuku tapawhā-kore	non-square grids
tukutuku tau oti	whole number grid
tūponotanga pāngarau	theoretical probability
tūponotanga	probability
tūponotanga tērā ka ua	chance of rain
tūponotanga whakawhirinaki	conditional probability
ture	rule
ture aho	sine rule
ture rārangi	linear rules
ture taparara	trapezium rule
ture toenga	remainder theorem
ture whānui	general rule
tūtohi	chart
tūtohi	table
tūtohi auau	frequency table
tūtohi tātai	calculation table
tūtohi wā rerenga	airline timetables
tūtohu tatau	tally chart
tūturu	real
tūwhene	deficit
uara	value
uara e whakapaetia	expected values
uara tū	place value
uka	coin
ukauka	winning
unahi	parabola
wā ringarua	analogue time
waeine	unit of measurement
waeine aronga kē	non-standard measurement

waeine ngahuru	metric unit
waeine takanga wā	unit of time
wāhanga	quantity
wāhanga porohita	sector
wāhi tupa	point of inflection
wairua tāwari	flexibility
wāmati	digital time
wātaka	timetable
wāwāhanga moni	change
wāwāhanga papa	planks
weherua koki	angle bisector
weherua tapatoru	median
whai	string games
whai takenga	approximate reasonableness
whai takenga	reasonableness
whai wāhi	involvement
whai wāhi	involving
whakaahu-2-tanga	2-dimensional representation
whakaahua	describe
whakaahua āwhata	scale drawing
whakaahua raupapa	ordered pictures
whakaari	data display
whakaari	represent
whakaari raraunga	data display
whakaaritia	illustrated
whakaaro tihoi	lateral thinker
whakaaro waitara	abstract thought
whakaata	reflection
whakaatanga	reflection
whakaatu	show
whakaatu raraunga whakarōpū	display category data
whakaatu-ā-ringa	by practical means
whakaatuhia	represented
whakaawhiwhi	approximate
whakaawhiwhi	round
whakaawhiwhi	to round
whakahāngai	apply
whakahāngai rautaki	apply strategy
whakahau	rational
whakahau	requiring
whakahau-kore	irrational
whakahau-kore	irrational numbers

whakahekenga utu	discount
whakahoki	continue
whakahoki	repeat
whakairi kaka	coathanger
whakaiti	reduce
whakakauruku	shade in
whakamahi	use
whakamahi rango	using a cylinder
whakamahi tahi	combining
whakamāori	interpret
whakamātau	experiment
whakaoti rapanga	solve problems
whakaoti rapanga whitake	solve practical problems
whakaotinga	optimal solution
whakaotinga tino tika	optimal solutions
whakapae	inferences
whakapaetia	expected
whakapakari	consolidate
whakapakari	develop
whakapakari i ngā whakaaro	develop a concept
whakapāuaua	strengthen
whakapekatanga	distortion
whakapikinga utu	mark-up
whakarahinga	enlargement
whakarara	parallel
whakarara	parallelogram
whakarau	multiplication
whakaraunga	multiplication
whakaraupapa	put in order
whakarea	arithmetic or geometric sequence or series
whakarite hōpara tauanga	plan statistical investigation
whakaritenga	comparison
whakarōpū	categorise
whakarōpū	classify
whakarünā	simplify
whakatairanga	highlight
whakatairite	compare
whakatau	estimate
whakatau	simulate
whakatau	simulated
whakatau	simulation
whakatau pūahua	simulate situations

whakatau tata	estimate
whakatauirā	model
whakatauritenga taurangi	comparison of variables
whakatauwehe	factorise
whakaterenga	acceleration
whakaterenga waka	acceleration
whakatūturu	range
whakaū kounga	quality control
whakauru	substitute
whakawehenga	division
whakawhānui	expand
whakawhānui	generalise
whakawhiti	make conversions
whakawhiti	rearrange
whakawhitiwhiti	convert
whakhokia	repeated
whakoti rapanga	problem-solving
whare	tent
whārite	equation
whārite pūrua	quadratic equation
whārite rārangi	equation
whārite rārangi	linear equation
whārite rārangi-kore	non-linear equations
whārite tukutahi	simultaneous equations
whārite-rārangi ahu-2	2-dimensional linear equations
whāruarua	minimum
whawhe	manipulate
whawhenga	manipulate
whawhenga	manipulation
whētui	fold
whiriwhiri	investigate
whiti	change
whitianga	diameter
uehā	axle