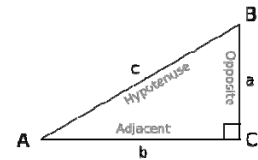
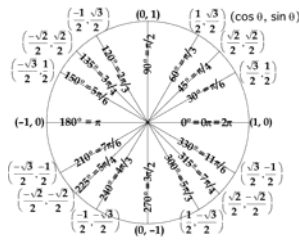


# Glossary

## High School Level Algebra **2** Glossary

### English / Kinyarwanda



Translation of Algebra 2 & Trigonometry terms based on the Coursework for Algebra 2 & Trigonometry Grades 9 to 12.

Word-for-word glossaries are used for testing accommodations for ELL/LEP students





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**P-16**

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ALGEBRA 2 - HIGH SCHOOL LEVEL

ENGLISH	KINYARWANDA
<b>Problem Solving</b>	<b>Gukora amahurizo</b>
algebraically	mu buryo bw'alijebure
alternate approach	ubundi buryo
collaborate	gukorana
conjecture	ukwibwira
constraint	imbogamizi
critique	isuzuma
equivalent	bingana na
evaluate	gusuzuma
explain	gusobanura
formulate	kwandika inzira
generalization	gukoresha hose
graphically	mu mbonerahamwe
interpret	gusobanura
multiple representations	ibishushanyo bitandukanye
numerically	mu buryo bw'imibare
observe	kwitegereza
parameter	ikigenderwaho
strategy	ingamba
verbally	mu magambo
<b>Reasoning and Proof</b>	<b>Inzira n'umugabo</b>
argument	ingingo
axiom	ihame
conclusion	umwanzuro
conjecture	ukwibwira
counterexample	ihakanarugero
discover	kuvumbura
exact answer	igisubizo nyacyo
explain	gusobanura
explore	kurondora
general case	imiterere rusange
inductive reasoning	inyurabitekerezo
Informal indirect proof	Umugabo utarasuzumwa neza
investigate	kugenzura
justify	gusobanura
refute	kuvuguruza
specific result	igisubizo gihamye
theorem	ihame
<b>Communication</b>	<b>Itumanaho</b>
accuracy	ukuri nyako
appropriate	kiboneye
challenge	imbogamizi
chart	imbonerahamwe

## ALGEBRA 2 - HIGH SCHOOL LEVEL

ENGLISH	KINYARWANDA
coherent	bisobanutse
comprehension	isobanukirwa
conjecture	ukwibwira
decoding	isesengura
diagram	imbonerahamwe
equation	inganyagaciro
formula	ihinamvugo
function	fongisiyo
graph	igishushanyo
interpretation	igisobanuro
logical argument	ingingo nyurabwenge
mathematical representation	kugaragaza mu mibare
numerical tables	imbonerahamwe z'imibare
organize	gutunganya
outline	kuvuga mu ncamake
rationale	ishingiro
reflect	gutekereza
standard notation	kwandika bisanzwe
strategy	ingamba
symbol	ikimenyetso
technical writing	inyandiko y'abahanga
terminology	amuga
validity	agaciro
verbal explanation	ibisobanuro mu magambo
written explanation	ibisobanuro byanditse
Connections	Amahuriro
concept	igitekerezo
conclusion	umwanzuro
formulate	kwandika inzira
multiple representation	kugaragaza mu buryo butandukanye
physical model	igishushanyo mbonera
procedure	uburyo
quantitative model	igisobanuro mibare
representation	igaragaza
Representation	Igaragaza
algebraic representation	igaragaza muri aligebure
apply	gukoresha
chart	imbonerahamwe
communicate	gutumanaho
compare	kugereranya
concept	igitekerezo
diagram	imbonerahamwe
equation	inganyagaciro
explore	kurondora

## ALGEBRA 2 - HIGH SCHOOL LEVEL

ENGLISH	KINYARWANDA
graph	igishushanyo
graphical representation	igaragaza mu gishushanyo
investigate	kugenzura
mathematical phenomena	imibare
multiple representations	ibishushanyo bitandukanye
organize	gutunganya
physical object	ikintu gifatika
physical phenomena	ibintu bigaragara
recognize	kumenya
record	kwandika
social phenomena	imibanire
symbol	ikimenyetso
table	imbonerahamwe
technology	ikoranabuhanga
translate	gusemura inyandiko
<b>Number Sense and Operations</b>	<b>Igisobanuro cy'imibare n'uko ikorwa</b>
a+bi form	uburyo bwa a+bi
absolute value	agaciro ndakuka
complex fraction	umugabane nkomatane
complex number	umubare w'inyunge
conjugate	gusobanura ikimenyetso
direct variation	isano ry'imibare ritaziguye
$e$	$e$
fractional exponent	ubwikube bw'umugabane
$i$	$i$
imaginary number	umubare muhimbano
index of a radical	ubwikube bw'umwikubekabiri
inverse variation	isano ry'imibare ricuritse
irrational number	umubare udashira
negative exponent	ubwikube buruta zero
nth root	ubwikube runaka
operation	igikorwa
$\pi$	$\pi$
powers of $i$	ubwikube bwa $i$
principal square root	ubwikubekabiri nyabwo
procedure	uburyo
radical	ubwikubekabiri
radical form	uburyo bw'ubwikubekabiri
radicand	umubare wikuba kabiri
rational number	umubare ushira
rationalize a denominator	guhindura icyita ikibara
real number	umubare nyawo
scientific notation	ikimenyetso cya siyansi
sigma	sigima
sigma notation	imyandikire ya sigima

## ALGEBRA 2 - HIGH SCHOOL LEVEL

ENGLISH	KINYARWANDA
Algebra	Alijebure
abscissa	abusisi
absolute value	agaciro ndakuka
absolute value equation	inganyagaciro y'uduciro ndakuka
absolute value function	fongisiyo y'umubare ndakuka
absolute value inequality	ubusumbane bw'imibare ndakuka
adjacent angles	imfuruka zihuje inguni
adjacent sides	impande zezeranye
algebraic expression	inyandiko y'aliyebure
algebraic representation	igaragaza muri aliyebure
ambiguous case	uburyo butera urujijo
amplitude	ubuhagarike
analyze	gusesengura
angle	imfuruka
angle in standard position	imfuruka ihagaze neza
angle of depression	imfuruka yinjiramo
angle of elevation	imfuruka isohoka
antilogarithm	antilogaritime
approximate value	ikigeraranyo cy'umubare
arc length	uburebure bw'agaheto
arc cosine	kosinisi y'agaheto
arc sine	sinisi y'agaheto
arc tangent	tanjante y'agaheto
area of a parallelogram using SAS	ubuso bw'ingirwamwashi hakoreshejwe SAS
area of a triangle using SAS	ubuso bwa mpandeshatu hakoreshejwe SAS
arithmetic sequence	imibare ikurikirana
arithmetic series	uruhererekane rw'imibare
asymptote	asimputote
base	imbata
base of a logarithmic function	imbata ya fongisiyo ya logaritime
base of an exponential function	imbata ya fongisiyo y'ubwikube
binomial expansion	gukora ihurizo rya binome
binomial theorem	ihame rya binome
center-radius equation of a circle	inganyagaciro y'akarambararo k'uruziga
central angle	imfuruka yo hagati
circle	uruziga
circular functions	fongisiyo ruziga
coefficient	umubare nkubishwa
cofunctions	fongisiyo mpuzasano
common base (s)	imbata rusange
common difference	ikinyuranyo rusange
common factor	umubare ngabanyika rusange
common logarithm	logaritime rusange
common ratio	igipimo rusange
completing the square	kuzuza muri kare

## ALGEBRA 2 - HIGH SCHOOL LEVEL

ENGLISH	KINYARWANDA
complex fractional expressions	imigabane nkomatane
compositions of functions	imiterere ya fongisiyo
compound interest	inyungu ishamikiranye
constant function	fongisiyo idahinduka
cosecant	kosekante
cosine	kosinisi
cotangent	kotanjante
degree of a polynomial	dogere y'igiteranyo cy'imibare myinshi
difference of two perfect squares	ikinyuranyo cya kare ebyiri nyazo
direct variation	isano ry'imibare ritaziguye
discriminant	ivangura
domain	urwego
double and half angle formulas for trigonometric function	inzira ebyiri cyangwa z'ibice muri fongisiyo ya tirigonometiri
double root	ubwikubekabiri bubiri
$e$	$e$
equation	inganyagaciro
equivalent forms	ibingana
exact value	umubare nyawo
expand a binomial	gukora ihurizo rya binome
explicit definition	insobanuro isobanutse
exponential form	uburyo bw'ubwikube
exponential function	fongisiyo y'ubwikube
extraneous root	ubwikubekabiri bw'inyongera
factor	umubare ngabanyika
fractional exponent	ubwikube bw'umugabane
frequency (of a periodic function)	ubwisubire (ya fongisiyo igaruka)
function	fongisiyo
function notation	imyandikire ya fongisiyo
geometric sequence	urukurikirane rwa jewometiri
geometric series	uruhererekane rwa jewometiri
graphical solution of equations	igishushanyo cy'inganyagaciro
greatest common factor (GCF)	umubare nyabanyika uruta indi (GCF)
growth factor	ubwiyongere bw'umubare ngabanyika
half-life	icyakabiri
$i$	$i$
identities	indanga
initial side of an angle	uruhande rubanza rw'imfuruka
inverse function	fongisiyo icuritse
inverse trigonometric functions	fongisiyo za tirigonometiri icuritse
inverse variation	isano ry'imibare ricuritse
law of Cosines	itegeko rya kosinisi
laws of Sines	amategeko ya sinisi
laws of exponents	amategeko y'ubwikube
laws of logarithms	amategeko ya logaritime
linear equation	inganyagaciro murungo

## ALGEBRA 2 - HIGH SCHOOL LEVEL

ENGLISH	KINYARWANDA
linear expression	inyandiko murongo
linear systems	sisitemu mirongo
logarithm	logaritime
logarithmic form	uburyo bwa logaritime
lowest terms	ingero ntoya cyane
nature of the roots	ikicro cy'ubwikubekabiri
negative exponent	ubwikube buruta zero
$n$ th root	ubwikube runaka
$n$ th term	umubare runaka
one cycle of a trigonometric function	inzira ya fongisiyo ya tirigonometiri
one-to-one function	fongisiyo ku yindi
onto	kuri
opposite side in a right triangle	urundi ruhande rwa mpandeshatu ndinganire
ordinate	umubare ku mpembe ya Y
parabola	parabore
parameter	ikigenderwaho
period (of a function)	inzira (ya fongisiyo)
periodic function	fongisiyo yisubiramo
phase shift	guhindura onde
polynomial expression	polinome
polynomial function	fongisiyo ya polinome
Powers of $i$	Ubwikube bwa $i$
Pythagorean identities	Indanga za Pitagore
quadrant angle	imfuruka igoroye
quadratic equation	inganyagaciro y'imibarwa ine
quadratic formula	inzira y'ubwikubekabiri
quadratic inequality	ubusumbane bw'ubwikubekabiri
quadratic trinomial	tirinome y'ubwikubekabiri
radius	umurambararo
range (of a function)	ingano (ya fongisiyo)
rational coefficient	umubare nkubishwa nyawo
rational equation	inganyagaciro y'umubare nyawo
rational expression	umubare nyawo
rational inequality	ubusumbane bw'umubare nyawo
rationalize denominators	guhindura ibyita ibibara
reciprocal trigonometric functions	fongisiyo za tirigonometiri zigaruka
recursive definition	insobanuro igaruka
reference angle	imfuruka fatizo
relation	isano
replacement	isimbura
represent	kugaragaza
restricted domain	imibare yo muri fongisiyo gusa
resultant	igisubizo
right triangle trigonometry	tirigonometiri ya mpandeshatu nyayo
root of an equation	ubwikubekabiri bw'inganyagaciro
secant (of an angle)	sekante (y'imfuruka)



## ALGEBRA 2 - HIGH SCHOOL LEVEL

ENGLISH	KINYARWANDA
sigma notation	imyandikire ya sigima
sine	sinisi
solution set	ibisubizo
standard position (of an angle)	imfuruka ihera ku mpembe ya X
subset	agatsinda
sum and product or roots of a quadratic equation	igiteranyo n'igikuba cg ubwikubekabiri bw'inganyagaciro y'imibarwa ine
sum of an arithmetic series	igiteranyo cy'uruhererekane mibare
sum of a geometric series	igiteranyo cy'uruhererekane rw'imibare yikuba
systems of equations/inequalities	sisitemu y'inganyagaciro/ubusumbane
tangent (of an angle)	tanjante (y'imfuruka)
technology	ikoranabuhanga
terminal side of an angle	impera y'imfuruka
transformation	impinduka
transformations of functions and relations	impinduka za fongisiyo n'amasano
trigonometric equation	inganyagaciro ya tirigonometiri
trigonometric functions	fongisiyo za tirigonometiri
unit circle	uruziga rw'ibyabumwe
variable	impinduragaciro
vector	vegiteri
vertical line test	isuzuma ry'umurongo uhagaze
zero of a function	zeru ya fongisiyo
zero product property	itegeko ry'igikubwa zeru
Geometry	Jewometiri
absolute value	agaciro ndakuka
absolute value equation	inganyagaciro y'imibare ndakuka
absolute value inequality	ubusumbane bw'imibare ndakuka
angle in standard position	imfuruka ihagaze neza
angle of depression	imfuruka yinjiramo
angle of elevation	imfuruka isohoka
area of a parallelogram using SAS	ubuso bw'ingirwamwashi hakoreshejwe SAS
area of a triangle using SAS	ubuso bwa mpandeshatu hakoreshejwe SAS
circle	uruziga
coefficient	umubare nkubishwa
function	fongisiyo
generalize	gukoresha hose
geometric representation of a circular function	igaragaza rya tirigonometiri rya fongisiyo rusiga
graph of a relation	igishushanyo cy'isano
graphical representation	igaragaza mu gishushanyo
graphical solution of equations	igishushanyo k'inganyagaciro
investigate	kugenzura
ordered pair	imibare ibiribiri ikurikirana
parabola	parabore
rational coefficient	umubare nkubishwa nyawo
rectangular coordinates	inguni z'urukiramende

ALGEBRA 2 - HIGH SCHOOL LEVEL

ENGLISH	KINYARWANDA
relation	isano
root of an equation	ubwikubekabiri bw'inganyagaciro
sector of a circle	igipande cy'uruziga
slope	agacuri
triangle	mpandeshatu
vertex	ihuriro
visualization	iroramashusho
Measurement	Ibipimo
arc length	uburebure bw'agaheto
degree measure	dogere
measure of central angle	ibipimo by'imfuruka rwagati
minute	umunota
radian measure	ibipimo by'impuzampembe
Statistics and Probability	Ibarurishamibare n'icungamahirwe
at least	nibura
at most	ntarengwa
Bernoulli experiments	ihame rya Bernoulli
biased sample	urugero rubogamyeye
bimodal	uburyo bubiri
binomial probability formula	inzira y'igereranya rya binome
bivariate data	amakuru y'ibyiciro bibiri
central tendency	kwegera impuzandengo
combination	ihuza
compound event	imberarimwe
conjecture	ukwibwira
controlled experiment	igerageza rigenzurwa
correlation coefficient	umubarwa huriro
counting principle	ihame ryo kubara
exactly	mahwi
experimental probability	igereranya ry'igerageza
extrapolate	gukoresha ahandi
frequency (of a data set)	ubwisubire (bw'itsinda ry'imibare)
frequency distribution	igishushanyo cy'ubwisubire
grouped frequency distribution	igishushanyo gikomatanya ubwisubire
index in statistics	igipimo cy'ibarurishamibare
interpolate	kugereranya
interquartile range	ikigero cy'impuzandengo
least squares regression line	umurongo mpuzamibare
line of best fit	umurongo ngaragazamakuru
linear regression	umurongo ndangasano
mean	impuzandengo
measure of central tendency	umubare wegera impuzandengo
measure of dispersion	igipimo cy'isandaguza
median	impuzampembe

## ALGEBRA 2 - HIGH SCHOOL LEVEL

ENGLISH	KINYARWANDA
mode	umubare ngaruka kenshi
normal curve	ubuhete busanzwe
normal distribution	isaranganya risanzwe
observation	ibigaragara
outlier	umwihariko
Pascal's triangle	mpandeshatu ya Pascal
percentile	ijanisha
permutation	ihinduranya
probability	icungamahirwe
quartiles	ibyakane
random sample	urugero rufatiweho
range (of a data set)	ikigereranyo (y'itsinda ry'imibare)
regression equation	inganyagaciro ngaruka
regression model	ubwoko ngaruka
sample space	umwanya rugero
scatter plot	igishushanyo ngaragazamakuru
standard deviation (population)	ikinyuranyo mubare (abakorerwaho ubushakashatsi)
standard deviation (sample)	ikinyuranyo mubare (urugero)
statistics	ibarurishamibare
survey	ubushakashatsi
technology	ikoranabuhanga
theoretical probability	icungamahirwe bumenyi
univariate data	amakuru kicro kimwe
variance (population)	ikinyuranyo (abakorwaho ubushakashatsi)
variance (sample)	ikinyuranyo (urugero)

## NYS Grades 9 – 12 Math Terms Addenda

Common Core Math Standard	ENGLISH	KINYARWANDA
N-RN.B.3	non-zero rational number	umubare mbyaramugabane utari zero
A-SSE.A.1	difference of squares, example: $(a^2 - b^2)$	ikinyuranyo cy'imibare kare, urugero: $(a^2 - b^2)$
A-SSE.A.1	square of a difference, example: $(a - b)^2$	ikinyuranyo kikuba kabiri, urugero: $(a - b)^2$
A-SSE.B.3	equivalent monthly interest rate	inyungu ya buri kwezi bingana
A-CED.A.1	exponential equation	inganyagaciro y'ubwikube
A-CED.A.3	non-viable options (inequalities)	uduciro tutari tutari nyatwo (imibare itangana)
A-CED.A.3	viable options (inequalities)	uduciro nyatwo (imibare itangana)
A-REI.A.1	viable argument	ingingo nyayo
A-REI.D.12	half-plane	icyakabiri
A-REI.D.11	logarithm function	fongisiyo ya logaritime
F-IF.C.8	piece-wise defined function	fongisiyo igenwa n'ibice
F-IF.C.8	step function	fongisiyo y'urwego
F-IF.C.8	absolute-value function	fongisiyo y'umubare uruta zero
F-BF.A.1	recursive process	isubiraburyo
F-Bf.B.3	even function	fongisiyo ndinganire
F-BF.B.3	odd function	fongisiyo giharwe
F-LE.A.1	constant percent rate	ijanisha ridahinduka
S-ID.B.5	categorical data	imibare byiciro
S-ID.B.5	joint frequency	ubwisubire nkomatane
S-ID.B.5	marginal frequency	igiteranyo cy'ubwisubire bw'igisubizo
S-ID.B.5	conditional relative frequency	umugabane w'ubwisubire bw'igisubizo
S-ID.B.6	fit of a function	fongisiyo nyayo
S-ID.B.6	residuals	ibisigaye
S-ID.C.8	correlation coefficient	umubarwa huriro
S-ID.C.8	linear fit	umurongo ndangagaciro
S-ID.C.9	correlation and causation	ihuriro n'impamvu
S-ID.C8	linearity	imitondekerwe
S-ID.C8	linear phenomenon	ikerekezo murongo
N-Q.A.3	data point	igipimo nshingirwaho
N.C.N.4	complex plane	ikinyampande nkomatane
N.C.N.5	conjugation of complex numbers	ikomatanya ry'imibare nkomatane
N-V.M.6	incidence relationship (payoff)	isano mpuriranye (imperekeza)
N-Q.A.2	descriptive modeling	isobanurampamvu
S-REI.A.2	algebraic manipulation	gukora ihurizo ry'alijebure

### KEYS

N-Q = Number & Quantity

SSE = Seeing Structures in Expressions

RN = Real Number System

BF = Building Functions

ID = Interpreting categorical and quantitative Data

CED = Creating Equations Describing numbers or relationships

REI = Reasoning with Equations & Inequality

VM = Vectors & Matrix quantities

IF = Interpreting Functions

ID = Interpreting categorical and quantitative Data

APR = Arithmetic with Polynomials & Relational expressions