

Glossary

High School Level

Integrated Algebra Glossary

English / Kinyarwanda

$$[f^{-1}(x)]' = \frac{1}{f'(x)}$$



Translation of Integrated Algebra terms based on the Coursework for Integrated Algebra Grades 9 to 12.

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





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High School Integrated Algebra

ENGLISH	KINYARWANDA
Problem Solving	Gukora amahurizo
algebraically	mu buryo bw'alijebure
concept	igitekerezo
conjecture	ukwibwira
constraint	imbogamizi
equivalent	bingana na
formulate	kwandika inzira
generalization	gukoresha hose
graphically	mu mbonerahamwe
multiple representations	ibishushanyo bitandukanye
numerically	mu buryo bw'imibare
parameter	ikigenderwaho
pattern	imiterere
relative efficiency	umusaruro uboneye
strategy	ingamba
verbally	mu magambo
Reasoning and Proof	
Inzira n'umugabo	
Appropriate	Kiboneye
approximation	kugereranya
argument	igitekerezo
claim	kuvuga
conclusion	umwanzuro
conjecture	ukwibwira
counterexample	urugero ruvuguruza
explain	gusobanura
inductive reasoning	kugena ihame
logical argument	igisobanuro gifite ishingiro
mathematical conjecture	umwanzuro w'imibare
proof	ikimenyetso
refute	kuvuguruza
systematic approach	uburyo bunoze
validity	agaciro
Venn diagram	imborehamwe ya Venn
verify	kugenzura

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ENGLISH	KINYARWANDA
Communication	Itumanaho
accuracy	urugero rw'ukuri
analyze	gusesengura
argument	igitekerezo
coherent	kujyana
communicate	gutumanaho
comprehension	gusobanukirwa
conclusion	umwanzuro
conjecture	ukwibwira
decoding	gusesengura
elicit	kugaragaza neza
equation	inganyagaciro
evaluate	gusuzuma
extend	kwagura
formula	inzira
function	fongisiyo
graph	igishushanyo
interpretation	igisobanuro
mathematical visual	amashusho nyamibare
rationale	impamvu
standard (mathematical) notation	imyandikire y'imibare ihamye
strategy	ingamba
table	imbonerahamwe
technical writing	inyandiko yifashishwa n'abahanga
terminology	amuga
valid	yemewe
Connections	Amahuriro
coherent whole	injyana
concept	igitekerezo
connection	ihuriro
formulate	kwandika inzira
physical model	igishushanyo mbonera
procedure	uburyo

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ENGLISH	KINYARWANDA
quantitative model	igisobanuro gishingiye ku mibare
representation	kugaragaza
Representation	Kugaragaza
angle of elevation	imfuruka isohoka
array	imbonerahamwe
chart	ishusho
compare	kugereranya
diagram	imbonerahamwe
equation	inganyagaciro
function	fongisiyo
graph	igishushanyo
interpret	gusobanura
mathematical phenomena	imibare
organize	gutunganya
physical phenomena	ubugenge
profit	inyungu
record	record
social phenomena	imibanire
symbol	ikimenyetso
table	imbonerahamwe
technology	ikoranabuhanga
translate	ihinduranyandiko
Number Sense and Operations	Igisobanuro cy'imibare n'uko ikora
absolute value	agaciro k'umubare
algebraic problem	ihurizo rya alijebure
arithmetic operation	gukora ihurizo rya alijebure
arrangements (permutations)	urutonde rw'imibare
associative property	gushyira mu dukubo
closure property	ihurizo rifite ikimenyetso kimwe
commutative property	inganyagaciro rigizwe n'ihinduranyije
counting techniques	uburyo bwo kubara
decimal	ikinyacumi
denominator	icyita

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ENGLISH	KINYARWANDA
discount	igabanyagiciro
distributive property	gukuba umubare n'iri mu dukubo
exponential expression	ubwikube
expression	imyandikire
factorial	ubwikube bw'uruhererekane
field	umwanya
fraction	umugabane
Fundamental Counting Principle	Ihame ry'ibenze ryo kubara
group	itsinda
identity property	umubare utagira icyo uhindura
inverse property	umubare w'ikinyuranyo
like/unlike radical terms	nk'ubwikubekabiri cyangwa nta bwikubekabiri
number theory	ihame ry'imibare
numerator	ikibara
percent of increase/decrease	ijanisha ry'ubwiyongere cyangwa
product	igisubizo
properties of the Real numbers	ibiranga imibare nyayo
proportionality/direct variation	isano ry'imibare ritaziguye
quotient	igisubizo cyo kugabanya
radical	ubwikubekabiri
radicand	umubare wikubakabiri
real numbers	imibare nyayo
scientific notation	imyandikire ikoreshwa muri siyansi
simplest form	uburyo bworoheje
variable	impinduragaciro
Algebra	Alijebure
acute angle	imfuruka ifunganye
adjacent side/angle	imfuruka zegeranye
algebraic equation	inganyagaciro za ali�ebure
algebraic expression	imyandikire ya aliجebure
algebraic fraction	ikinyamigabane cya aliجebure
analyze	gusesengura
axis of symmetry	umurongo ugabanyamo kabiri
binomial	binome

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ENGLISH	KINYARWANDA
coefficient	umubare nkubishwa
common base	ikita rusange
complement of a subset	icyuzuzo cy'agace
coordinates	imibare yo ku mpembe
cosine	kosinisi
dependent	bigengwa
difference of two perfect squares	ikinyuranyo cya mpande enye nyazo
element	umubare
equation	inganyagaciro
exponent	ubwikube
exponential growth and decay	kwiyongera no kugabanuka k'ubwikube
expression	imyandikire
factoring	igabanyamibare
fractional expression	inyandiko yo koroshya
greatest common factor (GCF)	umubare munini ugabanya indi ibiri (GCF)
hypotenuse	hipotenusi
independent variable	umubare udahinduka
inequality	ubusumbane
integer	umubarwa
integral coefficient	umubare nkubishwa wuzuye
integral exponent	ubwikube bw'umubarwa
integral root(s)	ubwikubekabiri bw'umubarwa
intersection of sets	ihuriro
interval notation	imyandikire y'umwanya
lead coefficient	umubare nkubishwa munini
legs of a right triangle	amaguru ya mpendeshatu igorotse
line parallel to the x- or y-axis	umurongo ubangikanye n'impembe x
linear equation in one variable	inganyagaciro yoroheje ishaka umubare
linear inequality in one variable	ubusumbane bworoheje bushaka umubare
literal equation	inganyagaciro rifite imibare izwi
lowest terms fraction	ikinyamigabane kitakoroshywa
monomial	monome
multiplication property of zero	ihame ryo gukuba na zero
opposite side/angle	imfuruka iteganye n'indi
parabola	parbole

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ENGLISH	KINYARWANDA
parallel	iteganye
polynomial	polinome
product	igisubizo
properties of exponents	ibiranga ubwikube
proportion	ibijyanye
Pythagorean Theorem	Ihame rya Pitagore
quadratic equation	inganyagaciro irimo ubwikubekabiri
quantitative	bishingiye ku mibare
quotient	igisubizo cyo kugabanya
ratio	ikigereranyo
relation	isano
right angle	imfuruka igororotse
right triangle	mpandeshatu igororotse
root(s) of an equation	ubwikube bw'inganyagaciro
roster form	kugaragaza mu mibare
set	itsinda
set-builder notation	imyandikire y'itsinda mu mibare
sine	sinisi
slope	agasozzi
solution set	ibisubizo
subset	agace
sum	igiteranyo
system of linear inequalities	sisitemu y'ubusumbane bworoshye bushaka
systems of linear equations	sisitemu y'inganyagaciro yoroshye ishaka
tangent	tanjanti
translate (from verbal to symbolic)	guhindura (uva mu magambo ushyira mu bimenyetso)
trigonometry	tirigonometri
trinomial	tirinome
undefined	kitagenwe
union of sets	ishyirahamwe ry'amatsinda
universal set	itsinda rusange
variable	impinduragaciro
verbal expression	mu magambo
verbal sentence	mu nteruro

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ENGLISH	KINYARWANDA
vertex	ihuriro
x-axis	impembe x
y-axis	impembe y
Geometry	Jewometiri
absolute value function	fongisiyo y'imibare ndakuka
angle	imfuruka
area	ubuso
axis of symmetry of a parabola	impembe igabanya parabore mo kabiri
circle	uruziga
coefficient	umubare nkubishwa
cylinder	umwiburungushure
decagon	mpandicum
exponential function	fongisiyo y'ubwikube
function	fongisiyo
generalize	gukoresha hose
geometric shape	ibinyampande
graph of a relation	igishushanyo ngaragazasano
hexagon	mpandesheshatu
investigate	gukora ubushakashatsi
nonagon	mpandikenda
octagon	mpandemunani
ordered pair	gukurikiranya imibare
parabolic function	fongisiyo ya parabore
parallelogram	ingirwamwashi
pentagon	mpandeshanu
perimeter	umuzenguruko
polygon	ikinyampande
quadrilateral	ikinyampande enye
quarter-circle	icya kane cy'uruziga
rational coefficient	umubare nkubishwa nyawo
rectangle	urukiramende
rectangular solid	urukiramende rwiburungushuye
regular polygon	ikinyampande kingana
relation	isano

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ENGLISH	KINYARWANDA
rhombus	umwashi
roots of a parabolic function	ubwikubekabiri bwa fongisiyo ya ya parabore
sector of a circle	igice cy'uruziga
semi-circle	icyakabiri cy'uruziga
spatial reasoning	gutekereza ku kinyampande nyabutatu
square	kare
surface area	ubuso
trapezoid	tarapezi
triangle	mpandeshatu
vertex	ihuriro
visualization	iroramashusho
volume	umubyimba
Measurement	
I bipimo	
appropriate unit	igipimo nyacyo
conversion	ihindura
cubic unit	igipimo cy'umubyimba
error	ikosa
linear measure	igipimo cy'uburebure
linear unit	igipimo cy'uburebure
magnitude	ubunini
measurement system	uburyo bwo gupima
rate	igipimo
relative error	ikosa rito
square unit	igipimo cy'ubuso
unit	igipimo
Statistics and Probability	
I barurishamibare n'igereranya	
appropriateness	biboneye
biased	birimo ikosa
bivariate	bigizwe n'imibare ibiri
box-and-whisker plot	imbonerahamwe y'utuzu na wisika
calculated probability	ikigereranyo
categorize	gushyira mu byiciro
causation	intandaro

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ENGLISH	KINYARWANDA
central tendency	kwegera impuzandengo
complement	icyuzuzo
conditional probability	ikigereranyo gishingiye ku kindi gikorwa
correlation	ihuriro
cumulative frequency distribution table	imbonerahamwe y'inshuro imibare
cumulative frequency histogram	hisitogarame y'inshuro imibare yisubiramo
data	imibare
dependent events	ibikorwa bitigenga
dependent variable	imibare itigenga
element	umubare
empirical probability	igereranya rifite ishingiro
experimental design	igerageza
extrapolation	gukoresha ahandi
favorable event	igikorwa cyifuzwa
finite sample space	urugero rw'ibisubizo bishoboka
five statistical summary	incamake mbarurishamibare eshanu
frequency distribution table	imbonerahamwe y'inshuro imibare
histogram	hisitogarame
independent events	ibikorwa byigenga
independent variable	umubare udahinduka
interpolation	iyongeramo
line of best fit	umurongo ngaragazamakuru
linear transformation	ihindura ku murongo
maximum	byinshi
mean	impuzandengo
measure of central tendency	umubare wegera impuzandengo
median	impuzampembe
minimum	bike
mode	uburyo
mutually exclusive events	ibikorwa bitabera rimwe
not mutually exclusive events	ibikorwa bishobora kubera rimwe
percentile rank	ijanisha
probability	igereranya
qualitative	isobanuramiterere
quantitative	bishingiye ku mibare

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ENGLISH	KINYARWANDA
quartiles (specifically: first, second, third or lower, middle, upper)	ibyakane (ni ukuvuga: icya mbere, icya kabiri, icya gatatu cyangwa munsi yacyo, hagati cyangwa hejuru yacyo)
range	uruhererekane
sample space	igice k'itsinda
scatter plot	igishushanyo ngaragazamakuru
series	ibyiciro
univariate	bigizwe n'umubare umwe

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 nkamatane
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 nkamatane
N.C.N.5	conjugation of complex numbers	ikomatanya ry'imibare nkamatane
N-V.M.6	incidence relationship (payoff)	isano mpuriranye (imperekeza)
N-Q.A.2	descriptive modeling	isobanurampamvu
S-REI.A.2	algebraic manipulation	gukora iherizo 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 & Metrix quantities

IF = Interpreting Functions

ID = Interpreting categorical and quantitative Data

APR = Arithmetic with Polynomials & Relational expressions