

# Glossary

**High School Level**

## Integrated Algebra Glossary

**English | Swahili**

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



This glossary is to PROVIDE PERMITTED TESTING ACCOMMODATIONS of ELL/MLL students. It should also be used for INSTRUCTION during the school year. The glossary may be downloaded, printed and disseminated to educators, parents and ELLs/MLLs.

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## Integrated Algebra

English	Swahili
<b>Problem Solving</b>	<b>Hesabu za Mafumbo</b>
algebraically	ki-aljebra
concept	dhana
conjecture	kisia
constraint	kizuizi
equivalent	sawa na
formulate	unda
generalization	Ujumuishaji
graphically	kwa njia ya grafu
multiple representations	uwasilishaji anuwai
numerically	kwa tarakimu
parameter	paramita
pattern	ruwaza
relative efficiency	ubora kiasi
strategy	mkakati
verbally	kwa maneno
<b>Reasoning and Proof</b>	<b>Kufikiria na Ushahidi</b>
Appropriate	Inayofaa
approximation	ukadiriaji
argument	hoja
claim	dai
conclusion	hitimisho
conjecture	kisia
counterexample	mfano kinzani
explain	fafanua
inductive reasoning	kufikiria kijumla
logical argument	hoja ya kimantiki
mathematical conjecture	kisia ya hisabati
proof	uthibitisho
refute	kanusha
systematic approach	mbinu ya kimpangilio
validity	uhalali
Venn diagram	mchoro wa venn

## Integrated Algebra

English	Swahili
verify	thibitisha
Communication	Mawasiliano
accuracy	usahihi
analyze	changanua
argument	hoja
coherent	ya kufungamana
communicate	wasiliana
comprehension	ufahamu
conclusion	hitimisho
conjecture	kisia
decoding	usimabaji
elicit	shawishi
equation	mlinganyo
evaluate	tathimini
extend	ongeza
formula	kanuni
function	kitendaji
graph	grafu
interpretation	ukalimani
mathematical visual	hisabati ya kuona
rationale	uwiano
standard (mathematical) notation	mwandiko wa kawaida (hisabati)
strategy	mkakati
table	jedwali
technical writing	uandishi wa kiufundi
terminology	istilahi
valid	halali
Connections	Miunganisho
coherent whole	yote madhubuti
concept	dhana
connection	muunganisho
formulate	unda
physical model	modeli halisi

## Integrated Algebra

English	Swahili
procedure	utaratibu
quantitative model	modeli kiasi
representation	uwakilishi
Representation	Uwakilishi
angle of elevation	pembe ya mwinuko
array	safu
chart	chati
compare	linganisha
diagram	mchoro
equation	mlinganyo
function	kitendaji
graph	grafu
interpret	kalimani
mathematical phenomena	matukio ya hisabati
organize	panga
physical phenomena	matukio halisi
profit	faida
record	rekodi
social phenomena	matukio ya kijamii
symbol	ishara
table	jedwali
technology	teknolojia
translate	tafsiri
Number Sense and Operations	Ufahamu wa Nambari na Matumizi
absolute value	thamani kamili
algebraic problem	fumbo la algebra
arithmetic operation	matumizi ya hesabu
arrangements (permutations)	mipangilio (hitari)
associative property	tabia husika
closure property	tabia ya kufunga
commutative property	tabia huru
counting techniques	mbinu za kuhesabu
decimal	desimali

## Integrated Algebra

English	Swahili
denominator	asili
discount	kipunguzo
distributive property	sifa ya kusambaza
exponential expression	maonyesho ya kujieleza
expression	maonyesho
factorial	zao mtiririko
field	eneo
fraction	sehemu
Fundamental Counting Principle	Kanuni Kuu ya Kuhesabu
group	kikundi
identity property	tabia tambulishi
inverse property	tabia ya kinyume
like/unlike radical terms	milinganyo inayofanana/isiyofanana
number theory	nadharia ya namba
numerator	kihesabu
percent of increase/decrease	asilimia ya ongozoko/punguzo
product	zao
properties of the Real numbers	tabia za nambari halisi
proportionality/direct variation	tofauti ya uwiano/moja kwa moja
quotient	hisa
radical	kipeo
radicand	kipeo
real numbers	nambari halisi
scientific notation	mwandiko wa kisanyansi
simplest form	umbo rahisi kabisa
variable	tofauti
Algebra	Aljebra
acute angle	pembe kali
adjacent side/angle	upande/pembe ya karibu
algebraic equation	mlinganyo wa aljebra
algebraic expression	mlinganyo wa kialjebra
algebraic fraction	sehemu ya aljebra
analyze	changanua

## Integrated Algebra

English	Swahili
axis of symmetry	kipenyo pacha
binomial	vipeo
coefficient	kizidishi
common base	kizio cha kawaida
complement of a subset	inayosaidiwa na seti ndogo
coordinates	viambatanishi
cosine	kosi
dependent	tegemezi
difference of two perfect squares	utofauti wa miraba miwili kamili
element	elementi
equation	mlinganyo
exponent	namba kipeo
exponential growth and decay	ukuaji na uozo kipeo
expression	maonyesho
factoring	inazingatia
fractional expression	maonyesho ya sehemu
greatest common factor (GCF)	kigawo kikubwa cha shirika (KKS)
hypotenuse	kiegana
independent variable	viwango huru
inequality	isiyo sawa
integer	kamili
integral coefficient	kizidishi muhimu
integral exponent	namba kipeo muhimu
integral root(s)	kipeo muhimu
intersection of sets	mkingamo wa seti
interval notation	mwandiko wa muda
lead coefficient	kizidishi kinachoongoza
legs of a right triangle	miguu ya pembetatu ya kulia
line parallel to the x- or y-axis	mstari unaolingana na jira ya x- au y-
linear equation in one variable	mlinganyo wa mstari katika tofauti moja
linear inequality in one variable	mstari kutokuwa sawa katika tofauti moja
literal equation	mlinganyo halisi
lowest terms fraction	sehemu ya chini ya maneno
monomial	monomi

## Integrated Algebra

English	Swahili
multiplication property of zero	uzidishaji wa tabia ya sufuri
opposite side/angle	upande/pembe mkabala
parabola	parabola
parallel	sambamba
polynomial	namba nyingi
product	zao
properties of exponents	tabia za namba kipeo
proportion	uwiano
Pythagorean Theorem	Kanuni ya Kipaithegorasi
quadratic equation	mlinganyo wa mraba
quantitative	kiasi
quotient	hisa
ratio	uwiano
relation	uhusiano
right angle	pelepele mraba
right triangle	pembetatu mraba
root(s) of an equation	kizio cha mlinganyo
roster form	fomu ya mahudhurio
set	seti
set-builder notation	mwandiko wa kijenzi cha seti
sine	sini
slope	mteremko
solution set	seti ya suluhisho
subset	seti ndogo
sum	jumla
system of linear inequalities	mifumo ya mistari isiyolingana
systems of linear equations	mifumo ya milinganyo ya mistari
tangent	mstari mguso
translate (from verbal to symbolic)	tafsiri (kutoka maneno kwenda ishara)
trigonometry	Trigonometria
trinomial	trinomi
undefined	haijainishwa
union of sets	umoja wa seti
universal set	seti majumui



## Integrated Algebra

English	Swahili
variable	tofauti
verbal expression	maonyesho ya vitenzi
verbal sentence	sentensi ya vitenzi
vertex	kipeo
x-axis	jira ya x
y-axis	jira ya y
Geometry	Jiometri
absolute value function	namba tegemezi ya thamani kamili
angle	pembe
area	eneo
axis of symmetry of a parabola	jira picha ya parabola
circle	duara
coefficient	kizidishi
cylinder	silinda
decagon	pembe kumi
exponential function	kipeo husisho
function	kitendaji
generalize	jumlisha
geometric shape	muundo wa kijiometri
graph of a relation	grafu ya uhusiano
hexagon	pembe sita
investigate	chunguza
nonagon	pembe tisa
octagon	pembe nane
ordered pair	jozi iliyoagizwa
parabolic function	namba tegemezi mfano
parallelogram	msambamba
pentagon	pembetano
perimeter	mzingo
polygon	poligoni
quadrilateral	pembe nne
quarter-circle	duara-robo
rational coefficient	kizidishi cha uwiano

## Integrated Algebra

English	Swahili
rectangle	mstatili
rectangular solid	mstatili thabiti
regular polygon	poligoni ya kawaida
relation	uhusiano
rhombus	msambamba sawa
roots of a parabolic function	kipeo cha namba tegemezi mfano
sector of a circle	sehemu ya duara
semi-circle	duara nusu
spatial reasoning	uwazaji nafasi
square	mraba
surface area	eneo la juu
trapezoid	msambamba tenge
triangle	pembetatu
vertex	kipeo
visualization	taswira
volume	sauti
Measurement	Vipimo
appropriate unit	kizio kinachofaa
conversion	mgeuzo
cubic unit	kizio ukubwa
error	hitilafu
linear measure	kipimo cha mstari
linear unit	kizio mstari
magnitude	ukubwa
measurement system	mfumo wa vipimo
rate	kiwango
relative error	hitilafu kiasi
square unit	kizio mraba
unit	kizio
Statistics and Probability	Takwimu na Uwezekano
appropriateness	kufaafu
biased	upendeleo
bivariate	tofauti mbili

## Integrated Algebra

English	Swahili
box-and-whisker plot	grafu ya kuonyesha usambazaji wa data
calculated probability	uwezekano uliohesabiwa
categorize	panga
causation	sababu
central tendency	tabia kuu
complement	kikamilisho
conditional probability	uwezekano wa masharti
correlation	uwiano
cumulative frequency distribution table	jedwali la usambazaji wa masafa ya
cumulative frequency histogram	histogramu ya masafa ya kulimbikiza
data	data
dependent events	matukio tegemezi
dependent variable	kigeugeu tegemezi
element	elementi
empirical probability	uwezekano wa jarabati
experimental design	muundo wa kujaribu
extrapolation	bashiri thamani ya tarakimu
favorable event	tukio linalofaa
finite sample space	nafasi ya sampuli yenye kikomo
five statistical summary	mihtasari mitano ya kitakwimu
frequency distribution table	jedwali la usambazaji wa masafa
histogram	histogramu
independent events	matukio huru
independent variable	viwango huru
interpolation	ujazo nambari
line of best fit	mstari unaofaa vyema
linear transformation	mabadiliko ya mstari
maximum	upeo wa juu
mean	wastani
measure of central tendency	kipimo cha tabia ya kati
median	wastani
minimum	upeo wa chini
mode	modi
mutually exclusive events	matukio ya pamoja ya kipekee

## Integrated Algebra

English	Swahili
not mutually exclusive events	sio matukio ya pamoja ya kipekee
percentile rank	daraja la asilimia
probability	uwezekano
qualitative	kijumla
quantitative	kiasi
quartiles (specifically: first, second, third or lower, middle, upper)	robo (hasa: ya kwanza, ya pili, ya tatu au ya chini, ya katikati, ya juu)
range	safu
sample space	nafasi ya sampuli
scatter plot	mpango wa kugawanya
series	mfululizo
univariate	tofauti moja