

Glossary

High School Level

Integrated Algebra Glossary

English | Twi

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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High School Integrated Algebra

ENGLISH	TWI
Problem Solving	ɔhaw a Wodi ho Dwuma
algebraically	nkyerεwde kwan so
concept	Adwenem nsusuwii
conjecture	tirimɔ
constraint	akwanside
equivalent	ne no yεpε
formulate	nwene
generalization	wɔma εfa nneεma afoforo ho
graphically	Mfonini kwan so
multiple representations	nhwεsode ahorow
numerically	nɔma kwan so
parameter	susude
pattern	nhwεsode
relative efficiency	dwumadi bere a wɔde atoto ɔfoforo
strategy	ɔkwan a wɔfa so ye biribi
verbally	kasa mu
Reasoning and Proof	Adesusuw ne Adanse
Appropriate	Ne kwan so/ ne yiye mu/ne papa mu
approximation	nsusuwso a εnye εno ankasa
argument	aεm (nsusuwii)
claim	Nea wɔkyerε
conclusion	Awiei aεm
conjecture	tirimɔ
Counterexample	Mmogu nhwεso
explain	kyerεkyerε mu
inductive reasoning	nsusuwii a efi nokwasεm mu
logical argument	nsusuwii a ntease wom
mathematical conjecture	akontaabu mu tirimɔ
proof	Adanse/nnyinaso
refute	ɔ gu
systematic approach	kwan a εye nnidso nnidiso
validity	gye a wogyε tom
Venn diagram	Venn mfonin
verify	hwehwε mu

High School Integrated Algebra

ENGLISH	TWI
Communication	Nkitahodi
accuracy	nokwasem a eye
analyze	hwehwɛ mu
argument	nsusuwii
coherent	ɛtoatoam
communicate	di nkitaho
comprehension	ntease
conclusion	Awiei asem
conjecture	tirimbo
decoding	ma ntease ba mu
elicit	da adi
equation	peye asem
evaluate	kari
extend	trɛw mu
formula	ɔkwan a wɔfa so ye biribi
function	akontaabu abusuabo (dwumadi/nhyiam)
graph	mfonin
interpretation	nkyerɛase
mathematical visual	akontaabu mu nea wohu
rationale	atirimpɔw
standard (mathematical) notation	akontaabu mu nkyerɛwde a wɔagye atom
strategy	ɔkwan a wɔfa so ye biribi
table	ɔpon
technical writing	nkyerɛw titiriw
terminology	nsemfua
valid	Eye/ ɛfata
Connections	Twaka/Nkitahodi ahorow
coherent whole	mu a ɛtoatoa
concept	adwenem pɔw
connection	Twaka (abusuabo)
formulate	nwene
physical model	nhwɛsode a wohu
procedure	ɔkwan a wɔfa so ye biribi

High School Integrated Algebra

ENGLISH	TWI
quantitative model	nɔma nhwɛsode
representation	nhwɛsode/sɛnkyerɛnne
Representation	Sɛnkyerɛnne
angle of elevation	angle a ɛkorɔn
array	ahorow
chart	nhyehyɛ pon
compare	Fatoto ho
diagram	mfonin
equation	pɛyɛ aɛɛm
function	akontaabu abusuabo (dwumadi/nhyiam)
graph	mfonin
interpret	kyerɛ ase
mathematical phenomena	akontaabu mu ade a asi
organize	hyehyɛ
physical phenomena	ade a asi a wohu
profit	mfaso
record	kyerɛwtoho
social phenomena	ade a asi a ɛfa nnipa ho
symbol	sɛnkyerɛnne
table	ɔpon
technology	abɛɛfo mfidwuma
translate	kyerɛ ase kɔ kasa foforo mu
Number Sense and Operations	Nɔma Ntease ne Nnwuma
absolute value	nɔma/bo ankasa
algebraic problem	akontaabu aɛɛm a nɔma nnim
arithmetic operation	akontaabu mu dwumadi
arrangements (permutations)	adehyehyɛ
associative property	asosietif akontaabu ho mmara
closure property	Awiei/ntomu mmara
commutative property	Kɔmutetif akontaabu ho mmara
counting techniques	akwan ahorow a wɔde kan ade
decimal	du mu nkyekyɛm
denominator	nɔma a wɔde kye mu

High School Integrated Algebra

ENGLISH	TWI
discount	nteso
distributive property	distributive akontaabu ho mmara
exponential expression	asɛm a nɔma ankasa mmɔho hyehyem
expression	asɛm (akyerɛwde/ɔkasamu)
factorial	faktorial
field	beae
fraction	ɔfa bi(nɔma sin)
Fundamental Counting Principle	Ade kenkan Gyinapɛn Titiriw
group	kuw
identity property	nsɛdi ho mmara
inverse property	abirabɔ ho mmara
like/unlike radical terms	radikal akontaabu nsɛm a ɛsɛ/ɛnsɛ
number theory	nɔma nsusuwii
numerator	nɔma a wɔrekyɛ mu
percent of increase/decrease	ɔha mu nkyekyem dodow a abɛka ho/ate afi so
product	mmɔho
properties of the Real numbers	Nɔma ankasa ho mmara
proportionality/direct variation	dodow nsɛso/tee nsakrae
quotient	nɔma a wonya wɔ nkyemu akyi
radical	radikal
radicand	radikand
real numbers	nɔma ankasa
scientific notation	nkyerɛwde a wɔagye atom
simplest form	nea ɛba fam sen biara
variable	nea etumi sesa
Algebra	ɔlgebra
acute angle	Akiut angil
adjacent side/angle	fa/angil a ɛwɔ nkyɛn
algebraic equation	akontaabu mu peye a nɔma nnim
algebraic expression	akontaabu mu asɛm a nɔma nnim
algebraic fraction	sin a nɔma nnim
analyze	hwehwe mu
axis of symmetry	pon a etwa sɛso
binomial	bainomial

High School Integrated Algebra

ENGLISH	TWI
coefficient	koefihyienti
common base	besi/ase biako
complement of a subset	Nea enka kuw bi ho
coordinates	gyinabea noma horow
cosine	kosain
dependent	gyina foforo so
difference of two perfect squares	ankasa mmcho abien nte fi mu
element	emu ade
equation	peye asem
exponent	ankasa mmcho ahyensode
exponential growth and decay	nkoso ne wporow mmcho
expression	asem (akyerewde/wkasamu)
factoring	emufo yiyi
fractional expression	asem a wakyerew no asinasin
greatest common factor (GCF)	emu noma a eso sen biara (GCF)
hypotenuse	Haiptenɔs
independent variable	Nea etumi sesa a ennyina foforo so
inequality	asem a enye pe
integer	noma a enye sin(noma mu)
integral coefficient	koefihyienti a enye sin
integral exponent	ankasa mmcho noma a enye sin
integral root(s)	ase noma ankasa
intersection of sets	nea ewo kuw ahorow mu
interval notation	emufo nkyerewee
lead coefficient	koefihyienti titiriw
legs of a right triangle	traiangil a animhwe faako ase
line parallel to the x- or y-axis	nsensan a ene x anaa y pon nhyia da (nsensan)
linear equation in one variable	tee peye a nsakraede biako wom
linear inequality in one variable	asem a enye pe a nsakraede biako wom
literal equation	akyerewde tee a eye pe
lowest terms fraction	fa a esua sen biara
monomial	akontaabu adekoro asem
multiplication property of zero	hwee mmcho ho mmara
opposite side/angle	fa/angil a ehwe anim
parabola	parabola

High School Integrated Algebra

ENGLISH	TWI
parallel	enhyia
polynomial	akontaabu dodow asem
product	mmɔho
properties of exponents	ankasa mmɔho mmara
proportion	dodow nsɛso
Pythagorean Theorem	Pythagoras Nsusuwii/Akontaabu
quadratic equation	kwadratik pɛyɛ asem
quantitative	nɔma kwan so
quotient	nɔma a wonya wɔ nkyemu akyi
ratio	nkyekyem
relation	abusuabɔ
right angle	angil 90
Right triangle	traiangil a ɛwɔ angil 90
root(s) of an equation	pɛyɛ asem bi ase
roster form	nhyehyɛ krataa
set	kuw
set-builder notation	kuw hyehyɛ nkyerɛwde
sine	sain
slope	nea esian
solution set	nea wonya kuw
subset	kuw a wonya fi mu
sum	nkabom
system of linear inequalities	nsem ahorow a ɛnyɛ pɛ
systems of linear equations	pɛyɛ nsem ahorow
tangent	nsensan a ɛka kɔntɔnkrɔn ho
translate (from verbal to symbolic)	fa nkyerɛwde kyere kasa ase
trigonometry	trigonometri
trinomial	akontaabu abiesa asem
undefined	ntease nnim
union of sets	kuw horow nkabom
universal set	akuw no nyinaa
variable	nea etumi sesa
verbal expression	asem a wɔaka
verbal sentence	kasasin a wɔaka
vertex	atifi

High School Integrated Algebra

ENGLISH	TWI
x-axis	x-pon
y-axis	y-pon
Geometry	Akontaabu mu Mfonin adesua
absolute value function	Akontaabu abusuabo a esi pi
angle	angil
area	beae
axis of symmetry of a parabola	pon a etwa seso parabola
circle	kɔntɔnkɔn
coefficient	koefihyienti
cylinder	silinda
decagon	dɛkagɔn/afadu
exponential function	mmɔho akontaabu abusuabo
function	akontaabu abusuabo
generalize	ma emfa afoforo ho
geometric shape	mfonin mu yɛbea
graph of a relation	abusuabo bi mfonin
hexagon	hɛksagɔn/afasia
investigate	hwehwe mu
nonagon	nɔnagɔn/afankɔn
octagon	ɔktagɔn
ordered pair	wɔahyehye no abien abien
parabolic function	parabola akontaabu abusuabo
parallelogram	paralelogram
pentagon	pɛntagɔn/afanum
perimeter	ntwahohyia/twa ho si
polygon	pɔligɔn
quadrilateral	afanan
quarter-circle	kɔntɔnkɔn nkyem anan
rational coefficient	nɔma ankasa koefihyienti
rectangle	rɛktangil
rectangular solid	rɛktangil mfonin ankasa
regular polygon	pɔligɔn mapa
relation	abusuabo
rhombus	rombɔs

High School Integrated Algebra

ENGLISH	TWI
roots of a parabolic function	parabola akontaabu abusuabo ase
sector of a circle	kɔntɔnkɔn fa bi
semi-circle	kɔntɔnkɔn nkyem abien
spatial reasoning	Wim nneema ho nsusuwii
square	afanan
surface area	anim/εso trεw
trapezoid	trapisoid
triangle	traiangil
vertex	atifi
visualization	mfoninitwa wɔ adwenem
volume	emu kεse (emu so/trεw)
Measurement	Nsusuwde
appropriate unit	susude a εfata
conversion	nsesae
cubic unit	Kiubik susude
error	sinto/mfomso
linear measure	Tee adesusuw
linear unit	Tee susude
magnitude	kεseyε/emu duru
measurement system	nhyehyεe a wɔde susuw ade
rate	pεn dodow
relative error	ntotoho sinto/mfomso
square unit	afanan susude
unit	susude
Statistics and Probability	Amanεεbo ne Si a Aεm Betumi Asi
appropriateness	fata a εfata
biased	animhwε/nyiyim
bivariate	nea nsesade abien wom
box-and-whisker plot	box-and-whisker mfonin a wɔayε
calculated probability	si a aεm betumi asi a wɔabu
categorize	hyehyε no akuwakuw
causation	Fibea (farebae)
central tendency	akontaabu mu amaneεbo mu nεm

High School Integrated Algebra

ENGLISH	TWI
complement	Nea enim
conditional probability	si a asem betumi asi a egyina biribi so
correlation	abusuabo
cumulative frequency distribution table	dodow mmcho hyehye pon
cumulative frequency histogram	dodow mmcho nhyehye mfonin
data	nsem amaneebo
dependent events	nsem a esisi a egyina afoforo so
dependent variable	nea etumi sesa a egyina foforo so
element	emu ade
empirical probability	si a asem betumi asi a egyina wiase mu nsem so
experimental design	nhwehwemu a wchyehye
extrapolation	abusuabo asem mu akyi akontaabu
favorable event	asem a eye
finite sample space	nhwehwemu kuw a emufo dodow wca nohyeto
five statistical summary	akontaabu amaneebo anum a wabo no mua
frequency distribution table	dodow hyehyepon
histogram	histogram
independent events	nsem a esisi a ennyina afoforo so
independent variable	nea etumi sesa a ennyin afoforo so
interpolation	abusuabo asem bi ho akontaabu a egyina nea
line of best fit	nsensan a eda ho sen biara
linear transformation	nsensan tee mu nsakrae
maximum	penpenso a esen biara
mean	nea wchwε kwan
measure of central tendency	akontaabu mu amaneebo mu nsem susude
median	nea eda mfinimfini
minimum	nea esua koraa
mode	nea ne dodow dɔso sen biara
mutually exclusive events	nsem a entumi nsi mmom
not mutually exclusive events	nsem a ebetumi asi abom
percentile rank	cha mu nkyekyem penpenso
probability	si a asem betumi asi
qualitative	wɔmmfa nɔma nni dwuma
quantitative	nɔma kwan so

High School Integrated Algebra

ENGLISH	TWI
quartiles (specifically: first, second, third or lower, middle, upper)	Nkyekyem anan (titiriw: nea edi kan, εto so abien, εto so abiesa anaa ennu, adantam, soro de)
range	nea εwom dodow
sample space	nhwehwεmu kuw ketewa
scatter plot	mma a εdeda basabasa mfonin
series	ahorow
univariate	nea nsesade biako pε wom

NYS Grades 9 – 12 Math Terms Addenda

Common Core Math Standard	ENGLISH	TWI
N-RN.B.3	non-zero rational number	nɔma a enye hwee (sɛro)
A-SSE.A.1	difference of squares, example: $(a^2 - b^2)$	nɔma bi ankasa mmɔho a woyi fi foforo a ete saa mu, sɛnhwɛso: $(a^2 - b^2)$
A-SSE.A.1	square of a difference, example: $(a - b)^2$	nɔma a woyi fi ɔfoforo mu na wobu n'ankasa mmɔho, sɛnhwɛso: $(a - b)^2$
A-SSE.B.3	equivalent monthly interest rate	bosome biara mfentom a ene no sɛ
A-CED.A.1	exponential equation	akontaabu pɛye asem a nɔma bi ankasa mmɔho hyehyem
A-CED.A.3	non-viable options (inequalities)	nea entumi nnyina (akontaabu asem a ene ɔfoforo nnye pɛ)
A-CED.A.3	viable options (inequalities)	nea etumi gyina (akontaabu asem a ene ɔfoforo nnye pɛ)
A-REI.A.1	viable argument	asɛm a etumi gyina
A-REI.D.12	half-plane	akontaabu mu mfonin a wɔatwa no fa
A-REI.D.11	logarithm function	asɛm a ɛkyerɛ nɔma bi ankasa mmɔho a wɔde nya nɔma bi
F-IF.C.8	piece-wise defined function	akontaabu mu asem a ekura afa ahorow
F-IF.C.8	step function	akontaabu mu asem a ekura afa ahorow pɔtee bi
F-IF.C.8	absolute-value function	akontaabu mu asem a wɔtwa no mfonin a ɛsɛ 'v'
F-BF.A.1	recursive process	nkyerɛwee kwan a wɔnam sankɔfa so ye
F-Bf.B.3	even function	akontaabu mu asem a sɛ wɔye ne mfonin a, 'y' pon no kyem abien pɛpɛpɛ
F-BF.B.3	odd function	akontaabu mu asem a sɛ wɔye ne mfonin a, ɛkyem abien pɛpɛpɛ wɔ 'x' ne 'y' pon nhyiam
F-LE.A.1	constant percent rate	ɔha mu nkyekyem a ɛnsakra
S-ID.B.5	categorical data	nɛm a wɔakyekyem akuw akuw
S-ID.B.5	joint frequency	dodow nyinaa mu nkyekyem a ɛwɔ afa ahorow
S-ID.B.5	marginal frequency	dodow a ɛwɔ nkabom afa
S-ID.B.5	conditional relative frequency	dodow a ɛwɔ afa ahorow
S-ID.B.6	fit of a function	akontaabu asem fata a ɛfata
S-ID.B.6	residuals	nea aka
S-ID.C.8	correlation coefficient	nɔma a ene nea etumi sakra bɔ ho wɔ asem bi mu
S-ID.C.8	linear fit	akontaabu asem a ɛfata pon a ɛkɔ tee
S-ID.C.9	correlation and causation	abusuabɔ a ɛda agyiraehyede ahorow ntam ne nsunsuanso a etumi nya wɔ afoforo so
S-ID.C8	linearity	so ɛbɛkɔ tee bere a wɔayɛ ne mfonin anaa
S-ID.C8	linear phenomenon	nea wobetumi akyerɛkyerɛ mu tee
N-Q.A.3	data point	asɛmpɔw
N.C.N.4	complex plane	akontaabu mu mfonin a ɛsɛ 'z'
N.C.N.5	conjugation of complex numbers	nɔma a ɛwɔ afa ahorow a wɔaka abom
N-V.M.6	incidence relationship (payoff)	abusuabɔ a ɛda nneɛma abien ntam wɔ mfonin mu
N-Q.A.2	descriptive modeling	asetena mu nɛm a wɔnam akontaabu so kyerɛw
S-REI.A.2	algebraic manipulation	akontaabu a wɔde agyiraehyede di dwuma wom

NYS Grades 9 – 12 Math Terms Addenda

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

KEYS

REI = Reasoning with Equations & Inequality
VM = Vectors & Matrix quantities
IF = Interpreting Functions
ID = Interpreting categorical and quantitative Data
APR = Arithmetic with Polynomials & Relational expressions