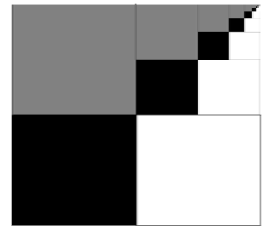
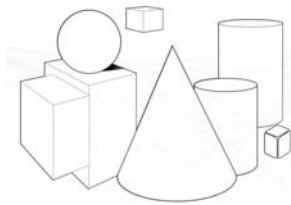


Glossary

High School Level Geometry Glossary

English / Fulani



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

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





THE STATE EDUCATION DEPARTMENT / THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, NY 12234

P-16

Office of Elementary, Middle, Secondary and Continuing Education and Office of Higher Education
Office of Bilingual Education and World Languages

<http://www.emsc.nysed.gov/biling/>

THE UNIVERSITY OF THE STATE OF NEW YORK

Regents of The University

BETTY A. ROSA, <i>Chancellor</i> , B.A., M.S. in Ed., M.S. in Ed., M.Ed., Ed.D.	Bronx
T. ANDREW BROWN, <i>Vice Chancellor</i> , B.A., J.D.	Rochester
ROGER TILLES, B.A., J.D.	Great Neck
LESTER W. YOUNG, JR., B.S., M.S., Ed.D.	Beechhurst
CHRISTINE D. CEA, B.A., M.A., Ph.D.	Staten Island
WADE S. NORWOOD, B.A.	Rochester
KATHLEEN M. CASHIN, B.S., M.S., Ed.D.	Brooklyn
JAMES E. COTTRELL, B.S., M.D.	New York
JOSEPHINE VICTORIA FINN, B.A., J.D.	Monticello
JUDITH CHIN, M.S. in Ed.	Little Neck
BEVERLY L. OUDERKIRK, B.S. in Ed., M.S. in Ed.	Morristown
CATHERINE COLLINS, R.N., N.P., B.S., M.S. in Ed., Ed.D.	Buffalo
JUDITH JOHNSON, B.A., M.A., C.A.S.	New Hempstead
NAN EILEEN MEAD, B.A.	Manhattan
ELIZABETH S. HAKANSON, A.S., M.S., C.A.S.	Syracuse
LUIS O. REYES, B.A., M.A., Ph.D.	New York
SUSAN W. MITTLER, B.S., M.S.	Ithaca

Commissioner of Education and President of The University

MARYELLEN ELIA

Executive Deputy Commissioner

ELIZABETH R. BERLIN

The State Education Department does not discriminate on the basis of age, color, religion, creed, disability, marital status, veteran status, national origin, race, gender, genetic predisposition or carrier status, or sexual orientation in its educational programs, services and activities. Portions of this publication can be made available in a variety of formats, including braille, large print or audio tape, upon request. Inquiries concerning this policy of nondiscrimination should be directed to the Department's Office for Diversity and Access, Room 530, Education Building, Albany, NY 12234.

GEOMETRY GLOSSARY - HIGH SCHOOL LEVEL

ENGLISH	FULANI
Problem Solving	Safrude Cadeele
AA triangle similarity	yeru fediiire AA
AAA triangle similarity	yeru fediiire AAA
AAS triangle congruence	pottanadum fediiire AAS
additive property of equality	gineeji beddutingo angal fotugo
algorithm	Jaabol
apply	wadde
ASA triangle congruence	pottanandum feyiire aas
conjecture	Wahmuuji
constraints	kadaangol
construct	Mahde
discover	Yiitude
dynamic geometry software	mawbe alkooji jeometiri comfutaaji
explore	Heftirki
generalization	jam'u wolwugo daw dudbe
inductive reasoning	Miccayeewol
justify	rokkude daliilo
parameters	fodde ko wadaa e ko wadete
reason	Daliila
truth value	caahiniidum
valid argument	gaabi labdi
Reasoning and Proof	Numuki e Seyda
AA triangle similarity	yeru fediiire AA
AAA triangle similarity	yeru fediiire AAA
AAS triangle congruence	pottanadum fediiire AAS
analytical proof	burhaanu sahihi
angle addition postulate	datal andinaawal beddungol sobbundu
ASA triangle congruence	pottanadum fediiire ASA
axiom	gerdaadi
biconditional	Yaakeejum
conclusion	Timmoode
conditional statement	boliide kiika-kiika
conjecture	Wahmuuji
conjunction	jokkol karfuuje
contradiction	Geddi
contrapositive of a statement	haala jeddi moyyi bolide
converse of a statement	haala jeddi bolide
counterexample	woodi yeru
deductive proof	seetol burhaanu
deductive reasoning	hujja delemkal
definition	maana harfuure ko kalimawol
disjunction	Luuluutiral

GEOMETRY GLOSSARY - HIGH SCHOOL LEVEL

ENGLISH	FULANI
dynamic geometry software	mawbe alkooji jeometiri comfutaaji
equivalence relation	bandiiku poddum
Euclidean Parallel Postulate	datal andinaawal bee tootordi yuklidia
explain	Famminde
geometry	Jowmitiri
hypotenuse and leg triangle congruence	pottanandum feyiire haa dow bee sosbondu daarindu
hypothesis	Sikkude
indirect proof	burhaanu ooñiido
inductive reasoning	Miccayeewol
inverse of a statement	tallugo bolide
investigate	widdidde
justify	rokkude sabaabu
logical equivalence	hakka
negation	Ludduuji
paragraph proof	burhaanu bind
parallel postulate (s)	datal aandinoawal tootordi
proof	Burhaanu
proof by contradiction	burhaanu daw soynde yerdootiral
proportional	tootordi
Pythagorean Theorem	andilankeejum pitaagoor
reason	Hujja
reflexive property of equality	tallugo gineeji bee potudum
SAS triangle congruence	tallugo bolide SAS
SAS similarity theorem	pottanadum fediiire SAS
SSS triangle congruence	pottanadum fediiire SSS
substitution property	luutinteedi littakiiji
subtraction property of equality	potnol alaama hoosugo
symmetric property of equality	gilgilaaru gineeji bee potudum
theorem	Andilankeegi
transformational proof	portiidum burhaanu
transitive property of equality	portiidum littakiiji potudum
truth value	caahiniidum
two-column proof	diddido burhaaji
undefined terms	soynde gasnol istilaahu
union of sets	kawtol moble
valid argument	gaabi labdi
Communication	Maatootiro
axiom	gerdaadi
bi-conditional	yaakeejum
compound statement	karfuuje kawrude
conclusion	Timmoode
conjecture	Tammunde

GEOMETRY GLOSSARY - HIGH SCHOOL LEVEL

ENGLISH	FULANI
conjunction	jokkol karfuuje
contrapositive of a statement	haala geddi bolide
definition	maana harfuure ko kalimawol
disjunction	luural hakkunde kuuje didi tammiraade njaadude
explain	Bannginki
hypothesis	Sikkude
Inverse of a statement	tallugo bolide
justify	hokkude sabaabu
negation	Lidduji
theorem	andilankeeji
truth value	caahiniidum
undefined terms	soynde gasnol istilaahu
Connections	Jokke
apply	wadde
compound locus	huyaaru battane
discover	yiitude
intersection of sets	pottal gebre
investigate	widitude
spatial relationships	gondal muytootawal
union of sets	kawtol mobile
Representation	Sifaaji
analytical geometry	cendindirki be jawmitri
coordinate geometry	jawmitri bakkeeje
definition	maana harfuure ko kalimawol
Euclidean geometry	jawmitri yuklidus
function	kuugal
graphical representation	curydinki
locus of points	nder lamngal loki
logical equivalence	sahihi potudum
non-Euclidean geometry	jeometiri walataako haala yuklidiya
three dimensional space	tatninki babal jihaaji
transformational geometry	jeometiri bayloowo
two dimensional space	diyyiki babal
Geometric Relationships	Jokkondirde Jeometiri
AA triangle similarity	yeru fediire AA
AAA triangle similarity	yeru fediire AAA
AAS triangle congruence	pottananyum fediire AAS
ASA triangle congruence	pottananyum fediire ASA
absolute value	samanji kankat
acute angle	Sobbunndu biliindu
acute triangle	fediire biliindu

GEOMETRY GLOSSARY - HIGH SCHOOL LEVEL

ENGLISH	FULANI
adjacent angles	fewndaye sobbunndu
algebraic representation	sifaaji aljabar
alternate interior angles	taaraaki sobbunndu haayaasi
altitude	haa hoodere
analytical geometry	cendindirki jeometiri
angle	Sobbunndu
angle bisector	ɗidiki sobbundu
angle measure	foondol sobbunndu
apothem	daaringol
arc	Kogiingol
arc measure	Foondokogiingol
area	ketaadum
axis of symmetry	mihrwaru yeedotira layi
base	Njuggam
betweenness	Cankantaaje
bisector	Ɗidiki
center of a circle	caka hownde
center of a regular polygon	balandi haa caka tootordi
center of gravity	caka joodikeejum lesdi
central angle	sobbunndu cakanteeru
central angle of a regular polygon	Sobbunndu cakanteeru balandi haa caka tootordu
centroid	cakaawal
chord	layi haatinaaal
circle	Hownde
circumcenter	caka hownde
circumcircle (about a polygon)	caka hownde
circumference	hownde ko tarde
collinear points	yeruuji haa layi
common tangents	yeruuji layi haa dow deriingol
complementary angles	yeeruuji sobbundu
concave polygon	naddiniidum balandi haa caka tootordu
concentric circles	yeruuji gilgilaaru
concurrent lines	haa dow layi
cone	Toondiire
congruence	Pottanandum
conic sections	juujuji toondiire
constant of proportionality	jootiidum bee pottuyum
convex polygon	tallugobalandi haa saka tootordu
coordinate geometry	jeometiri fasalu
coplanar	yenda layi
corresponding angles	yendootira
corresponding parts	yendootira juujuuji
corresponding side	ngendindu

GEOMETRY GLOSSARY - HIGH SCHOOL LEVEL

ENGLISH	FULANI
cross-section	compiite
cube	Piyande
cylinder	gilgilaaru
definition	maana harfuure ko kalimawol
diagonal	luurungol
diameter	peccungol
dihedral angle	didyiyo jungo sobbundu
distance	ndaayirka
distance between a point and a line	ndaayirka hakkunde tobbere e diidol
distance between two parallel lines	ndaayirka hakkunde diidi potandi
distance between two points	ndaayirka hakkunde tobbe d'idi
dodecahedron	sobbundu marugo jungo sappo e yiyi
ellipse	suudiindu
endpoint	tobbere ragareere
equiangular	pottudum sobbundu
equidistant	pottudum fidde
equilateral triangle	pottudum bee sobbundu
equilateral polygon	pottudum bee balandi haa caka tootordu
Euclidean Geometry	jeometiri bee yuklidus
Euclidean Parallel Postulate	datal andinaawal tootoordu bee yuklidia
exterior	baawo
exterior angle	baawo sobbundu
external secant segment	baawa gebre
face of a polyhedron	hoore susbundu jungoo balandi haa caka tootordu
foot of an altitude	kosngal bangaaku
function	kuude
geometric mean	cakacadum jeometiri
geometry	jeometiri
golden ratio	lamgal jinaari
golden rectangle	jinaari sukuya
great circle	hownde mawnde
hemisphere	kammuuji
Heron's formula	jaabol be hirdis
hexagon	sobbundu jeego
hypotenuse	liduuji sobbundu dariindu
icosahedron	sobbundu marugo jungo noogas
in center of a polygon	cakabalandi haa caka tootordu
inclination	mbaadi
inscribed angle	cuuduurki sobbundu
inscribed circle	duuduurki gilgilaaru
intercepted arc	nannde kogiingol
intercepts	nannde
interior	naarude

GEOMETRY GLOSSARY - HIGH SCHOOL LEVEL

ENGLISH	FULANI
intersecting lines	nannde layi
isosceles trapezoid	Sobbundu diddinki jungo
isosceles triangle	Feyiire diddninki
kite	sobbundu foondu
lateral area of a prism	hoore sobbundu tatninki
lateral edge	hoore lade
lateral face	hoore jungo
lateral surface	hoore nokku
legs of a right triangle	Kosngal feyiire dariindu
legs of a isosceles trapezoid	kosngal sobbundu diddinki jungo
length	Juutal
line	Layi
line segment	gebre layi
linear pair	didiki layi
locus of points	habre fiiliji
major arc	mawbe koogingol
mean proportional	cakacadum'dum
measure of an angle	poonduki sobbundu
measure of an arc	poonduki cakacadum'dum
median of a trapezoid	cakaca sobbundu didinki jungo
median of a triangle	cakku bee feyiire
midpoint	hakkunde
mid-segment	hakkunde banje
minor arc	peetel googingol
n-gon	n-gon
non-collinear	yeedootira layi haa dow
non-coplanar	walaako koplana
non-Euclidean geometry	walaako jeometitri bee yukilidiidus
obtuse angle	sobbundu feesiindu
obtuse triangle	diidol cobbuuli tati feeciidi
octagon	jungo sobbundu jeetati
octahedron	jungo sobbundu sappo
opposite rays	iilile layi luduuji
orthocenter	naraaldi bee feyiire haa layi
orthogonal	walaako ampaani
parabola	woodi koodiingol
parallel line segments	dow tootoordi haa layi
parallel lines	tootoordi layi
parallelepiped	tootoordi jujuuji
parallelogram	pottudum liiduuji jungo tayiire
pentagon	feyiire margo jungo jowi
perimeter	burey
perpendicular bisector	narrol layi diga cakka

GEOMETRY GLOSSARY - HIGH SCHOOL LEVEL

ENGLISH	FULANI
perpendicular bisector concurrence	narrol haa be aadi
perpendicular lines	narrol layi
perpendicular planes	narrol hoore haa dow
pi	lamngal pi
plane	sobbundu piirowal
point	tobbere
point of concurrency	dow pottal layi
point of tangency	dow fewndade
polygon	feyiire hoore masin
polyhedron	feyiire jungo masin
prism	feyiirr marugo pottanadum
product property of proportions	geeneji
proportional	cakaneere laayi
pyramid	cimaterde
Pythagorean Theorem	andilankeejum pitagooras
quadrant	cosbinirgewal
quadratic equation	potudumwal bee cosbinirgel
quadratic formula	jabol bee cosbinirgel
quadrilateral	haala cosbinirgel
radius	diidol caka hownde
ratio	Kasooji lamngal
ray	Ligal
real numbers	limngal dimal
rectangle	marngol diidol co'uuli nayid didi potandi
rectangular solid	Sukuyaaji
regular polygon	gaybu feyiire hoore masin
remote interior angles	sobbundu bee baawo
rhombus	fotundu nayiidi
right angle	sobbundu dariindu
right triangle	marngol diidol cobbuuli tati potandi
scalene triangle	sobbundu wala pasali
secant	layi cakala duurdinki
segment	gebre
segment of a circle	gebre gilgilaaru
semicircle	peeteewal gilgilaaru
set	Mumre
similar polygons	yeru feyiire hoore masin
similar triangles	cobbuuli jaadufi
simple quadrilateral	sobbundu walaako bone
skew lines	dariingu ayi
slant height	daaringu bangaaku
slope	caafal layi
sphere	kammuji

GEOMETRY GLOSSARY - HIGH SCHOOL LEVEL

ENGLISH	FULANI
square	sukuyad fotundu
supplementary angles	besdirngo sobbundu
surface area	haa dow
tangent segment	dow daaringol
tangent to a circle	dow daaringol gilgilaaru
tessellation	burdindiraawal cuurdinki
tetrahedron	huunde sosbunda
three-dimensional space	tatninki kammuji
topology	huundeki
transformational geometry	jeometiri canjaawal
transversal	mammababe
trapezoid	sobbundu walaako passali
triangle	marngol diidol cobbuli tati potandfi
triangle inequality	angal fotugo feyiire
trigonometry of the right triangle	tiddninki sobbundu dariindu
two-dimensional space	diddninki kammuji
vector	cakaneere
vertex	bangiidum layi diga dow haa yaasi
vertical angles	liduuji sobbundu
vertical line	liduuji layi tortoodi
volume	dille
x-axis	mihwaru-x
x-intercept	jabduude-x
y-axis	mihwaru-y
y-intercept	jabduude-y
z-axis	mihwaru-z
Constructions	Ma'di
angle bisector	sobbundu didife
bisector	didife fiili
center of a regular polygon	cakkaru sobbundu hoore masin
center of gravity	cakka joodbe lesdi
circumcircle (about a polygon)	gilgilaruubusobbundu hoore masin
compass	woylankeyel
construct	nyiba
dynamic geometry software	mawbe alkooji jeometiri comfutaaji
perpendicular bisector	daaringol didiki fiili
perpendicular bisector concurrence	daaringol didiki habru
perpendicular lines	daaringol
straightedge	cakaraawal

GEOMETRY GLOSSARY - HIGH SCHOOL LEVEL

ENGLISH	FULANI
Locus	Nokku nder maniiyu
circle	hownde
compound locus	fondugo layi diga cakka
ellipse	suudiindu
hyperbola	mawbe bili
locus of points	habre filiji
parabola	woodi koodiingol
Formal and Informal Proofs	Firndeeji teentudi e di teentinaani
AA triangle similarity	yeru fediire AA
AAA triangle similarity	yeru fediire AAA
AAS triangle congruence	pottanamdum feyiire AAS
ASA triangle congruence	pottanamdum feyiire ASA
angle addition postulate	datal andiinoowol bodugo sobbundu
axiom	gerdaadi
bi-conditional	yaakeejum
conclusion	timmoode
conditional statement	kalimawol seketeengol
conjecture	tammunde
conjunction	jokkol karfuuje
contradiction	soynde yerdootiral
contrapositive of a statement	nuffo
converse of a statement	lidduuji bolide
counterexample	lidduuji yeru
deductive reasoning	tammanungo
definition	maana harfuure ko kalimawol
disjunction	luural hakkunde kuuje didi tammiraade njaadude
dynamic geometry software	mawbe alkooji jeometiri comfutaaji
equivalence relation	bandiiku potudum
Euclidean Parallel Postulate	datal andinaawal bee tootordi yuklidia
hypotenuse and leg triangle congruence	Sifa
indirect proof	burhanu lidduuji
inductive reasoning	tammanugo jungo
inverse of a statement	lidduuji bolide
justify	Hewtinaaki
logical equivalent	sahiihi puttudum
negation	Lidduutaaki
parallel postulate (s)	datal andinaawal bee tootordi
postulate	datal andinaawal
proof	Burhaanu
proof by contradiction	burhaanu lidduuji
Pythagorean Theorem	andilankeejum pitagoora
reason	Dalila

GEOMETRY GLOSSARY - HIGH SCHOOL LEVEL

ENGLISH	FULANI
reflexive property of equality	gineeji miccitade bee potudum
SAS triangle congruence	pottanamdum feyiire sas
SAS similarity Theorem	andilakeejum yeru sas
SSS triangle congruence	pottanamdum feyiire sss
substitution property	gineeji canji
subtraction property of equality	gineeji biskitinaawal bee potudum
symmetric property of equality	gineeji gilgilaaru bee potudum
theorem	Andilankeejum
transitive property of equality	gineeji dillugo bee potudum
transformational proof	burhaanu dillugooji
truth value	samanji gongaadi
two-column proof	caahiniidum
undefined terms	soynde gasnol istilaahu
union of sets	kawtal moble
valid argument	gaabi labdi
Transformational Geometry	Jeometiri bayloowo
axis of symmetry	mihwru bee gilgilaaru
center of a dilation	cakka wonnugo
center of a rotation	cakka taarol
clockwise (orientation)	taarol bana agoogooji
composition	Keekeetiral
constant of proportionality	konooye bee pottandu
contraction	wonnugo haa reedu
counterclockwise (orientation)	lidduji taarol agoogooji
dilation	wonnugo haa reedu
direct transformation	firlitol koyngol
domain	Hurum
dynamic geometry software	mawbe alkooji jeometiri comfutaaji
fixed point	tobbere tabitnde
function	Kuugal
function notation for transformations	kuugal alaamaji be dillugo
glide reflection	miccitaade
group	mobgal
half-turn	wattugo kasar
identity	kumpitirgol
image	mbeelu
inverse of a transformation	lidduji battuki
isometric	isometiri
mapping (function)	kuugal hetaangal
opposite transformation	laddugi
orientation	humpitirgol
pre-image	kaafun deweerteede
reflection	lartirgol

GEOMETRY GLOSSARY - HIGH SCHOOL LEVEL

ENGLISH	FULANI
rotation	moslaaki
rotational symmetry	girgiigu moslaaki
symmetry	caka gilgilaaru
tessellation	bundidiral durdinki
transformation	battuki
transformational geometry	battuki jeometiri
translation	pirtugol
transformational geometry	battuki jeometiri
translation	pirtugol
Coordinate Geometry	Jeometri Laayu
abscissa	samanji durdinki haa dow layi
analytical geometry	cendirdinki jeometiri
analytical proof	cendirdinki burhaanu
Cartesian coordinates	layu katesiya
Cartesian plane	sobbundu katesiya
center-radius equation of circle	cakkaji bee reedu girgilaaru
coordinate	Layuuji
coordinate geometry	Jeometri layuuji
coordinate plane	layi sobbundu
distance between two points	ndaayirka hakkunde tobbe didi
origin	asngol
point slope equation of a line	gangaare bee layi
rectangular coordinates	layu sukuye
slope - intercept equation of a line	gangare bee jabbudo potudum layi
three-dimensional space	taddinki bee kammuuji
two-dimensional space	didiki nokkuuji
vector	layeeji wektoor
x-axis	mihwaru-x
x-intercept	mihwaru-x
y-axis	mihwaru-y
y-intercept	mihwaru-y
z-axis	mihwaru-z

NYS Grades 9 – 12 Math Terms Addenda

Common Core Math Standard	ENGLISH	FULANI
N-RN.B.3	non-zero rational number	limngal walaa hownde jabaangal
A-SSE.A.1	difference of squares, example: $(a^2 - b^2)$	ittuki nder cukoyaaaji, yeru: $(a^2 - b^2)$
A-SSE.A.1	square of a difference, example: $(a - b)^2$	sukoyoo ittol, yeru: $(a - b)^2$
A-SSE.B.3	equivalent monthly interest rate	kewtal duudal besdaari lewru
A-CED.A.1	exponential equation	potal sowaangal
A-CED.A.3	non-viable options (inequalities)	date de kebtataa (njaadataa)
A-CED.A.3	viable options (inequalities)	date mburtinayde (njaadataa)
A-REI.A.1	viable argument	haala potuka
A-REI.D.12	half-plane	senndere-njayri
A-REI.D.11	logarithm function	jahargal loogaaritm
F-IF.C.8	piece-wise defined function	jahargal burtinaangal cenndaangal
F-IF.C.8	step function	jahargal yaabannde
F-IF.C.8	absolute-value function	jahargal tummbiingal nder gedal
F-BF.A.1	recursive process	pudditoowal
F-Bf.B.3	even function	jahargal potungal
F-BF.B.3	odd function	jahargal jooral
F-LE.A.1	constant percent rate	duudal teemerre dariingal
S-ID.B.5	categorical data	kebal laabngal
S-ID.B.5	joint frequency	jomindiral nannde
S-ID.B.5	marginal frequency	jomindiral peccal
S-ID.B.5	conditional relative frequency	jomindiral teemawal
S-ID.B.6	fit of a function	hewta jomindiral
S-ID.B.6	residuals	luttaanooji
S-ID.C.8	correlation coefficient	nanndootiro
S-ID.C.8	linear fit	hewta diidi
S-ID.C.9	correlation and causation	nanndal e sabaabu
S-ID.C8	linearity	diidiiku
S-ID.C8	linear phenomenon	diidiiku kew
N-Q.A.3	data point	darorde kebal
N.C.N.4	complex plane	njayri cukkundi
N.C.N.5	conjugation of complex numbers	hawtindiro limde cukkude
N-V.M.6	incidence relationship (payoff)	nanndootiral fofaano (yobida)
N-Q.A.2	descriptive modeling	tinndintoonde
S-REI.A.2	algebraic manipulation	mbadu aljabaru

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