Suggested List of Mathematical Language

**Geometry**

**Problem Solving**
- AA triangle similarity
- AAA triangle similarity
- AAS triangle congruence
- additive property of equality
- algorithm
- apply
- ASA triangle congruence
- conjecture
- constraints
- construct
- discover
- dynamic geometry software
- explore
- generalization
- inductive reasoning
- justify
- parameters
- reason
- truth value
- valid argument

**Reasoning and Proof**
- AA triangle similarity
- AAA triangle similarity
- AAS triangle congruence
- analytical proof
- angle addition postulate
- ASA triangle congruence
- axiom
- biconditional
- conclusion
- conditional statement
- conjecture
- conjunction
- contradiction
- contrapositive of a statement
- converse of a statement
- counterexample
- deductive proof
- deductive reasoning
- definition
- disjunction
- dynamic geometry software
- equivalence relation
- Euclidean Parallel Postulate
- explain
- geometry
- hypotenuse and leg triangle congruence
- hypothesis
- indirect proof
- inductive reasoning
- inverse of a statement
- investigate
- justify
- logical equivalent
- negation
- paragraph proof
- parallel postulate(s)
- proof
- proof by contradiction
- proportional
- Pythagorean Theorem
- reason
- reflexive property of equality
- SAS triangle congruence
- SAS Similarity Theorem
SSS triangle congruence
substitution property
subtraction property of equality
symmetric property of equality
theorem
transformational proof
transitive property of equality
truth value
two-column proof
undefined terms
union of sets
valid argument

Communication
axiom
biconditional
compound statement
conclusion
conditional statement
conjecture
conjunction
contrapositive of a statement
converse of a statement
definition
disjunction
explain
hypothesis
inverse of a statement
justify
negation
theorem
truth value
undefined terms

Connections
apply
compound locus
discover
intersection of sets
investigate
spatial relationships
union of sets

Representation
analytical geometry
coordinate geometry
definition
Euclidean geometry
function
graphical representation
locus of points
logical equivalence
non-Euclidean geometry
three dimensional space
transformational geometry
two dimensional space

Geometric Relationships
AA triangle similarity
AAA triangle similarity
AAS triangle congruence
ASA triangle congruence
absolute value
acute angle
acute triangle
adjacent angles
algebraic representation
alternate interior angles
altitude
analytical geometry
angle
angle bisector
angle measure
apothem
arc
arc measure
area
axis of symmetry
base
betweenness
bisector
center of a circle
center of a regular polygon
center of gravity
central angle
central angle of a regular polygon
centroid
chord
circle
circumcenter
circumcircle (about a polygon)
circumference
collinear points
common tangents
complementary angles
concave polygon
concentric circles
concurrent lines
cone
congruence
conic sections
constant of proportionality
convex polygon
coordinate geometry
coplanar
corresponding angles
corresponding parts
corresponding sides
crossection
cube
cylinder
definition
diagonals
diameter
dihedral angle
distance
distance between a point and a line
distance between two parallel lines
distance between two points
dodecahedron
ellipse
endpoint
equiangular
equidistant
equilateral triangle
equilateral polygon
Euclidean Geometry
Euclidean Parallel Postulate
exterior
exterior angle
external secant segment
face of a polyhedron
foot of an altitude
function
geometric mean
geometry
golden ratio
golden rectangle
great circle
hemisphere
Heron's formula
hexagon
hypotenuse
icosahedron
incenter of a polygon
inclination
inscribed angle
inscribed circle
intercepted arc
intercepts
interior
intersecting lines
isosceles trapezoid
isosceles triangle
kite
lateral area of a prism
lateral edge
lateral face
lateral surface
legs of a right triangle
legs of an isosceles trapezoid
length
line
line segment
linear pair
locus of points
major arc
mean proportional
measure of an angle
measure of an arc
median of a trapezoid
median of a triangle
midpoint
midsegment
minor arc
n-gon
non-collinear
non-coplanar
non-Euclidean geometry
obtuse angle
obtuse triangle
octagon
octahedron
opposite rays
orthocenter
orthogonal
parabola
parallel line segments
parallel lines
parallelepiped
parallelogram
pentagon
perimeter
perpendicular bisector
perpendicular bisector concurrence
perpendicular lines
perpendicular planes
pi
plane
point
point of concurrency
point of tangency
polygon
polyhedron
prism
product property of proportions
proportional
pyramid
Pythagorean Theorem
quadrant
quadratic equation
quadratic formula
quadrilateral
radius
ratio
ray
real numbers
rectangle
rectangular solid
regular polygon
remote interior angles
rhombus
right angle
right triangle
scalene triangle
secant
segment
segment of a circle
semicircle
set
similar polygons
similar triangles
simple quadrilateral
skew lines
slant height
slope
sphere
square
supplementary angles
surface area
tangent segment
tangent to a circle
tessellation
tetrahedron
three-dimensional space
topology
transformational geometry
transversal
trapezoid
triangle
triangle inequality
trigonometry of the right triangle
two-dimensional space
vector
vertex
vertical angles
vertical line
volume
x-axis
x-intercept
y-axis
y-intercept
z-axis

Constructions

angle bisector
bisector
center of a regular polygon
center of gravity
circumcircle (about a polygon)
compass
construct
dynamic geometry software
perpendicular bisector
perpendicular bisector concurrence
perpendicular lines
straightedge

Locus

circle
compound locus
ellipse
hyperbola
locus of points
parabola

Formal and Informal Proofs

AA triangle similarity
AAA triangle similarity
AAS triangle congruence
ASA triangle congruence
angle addition postulate
axiom
biconditional
conclusion
conditional statement
conjecture
conjunction
contradiction
contrapositive of a statement
converse of a statement
counterexample
deductive reasoning
definition
disjunction
dynamic geometry software
equivalence relation
Euclidean Parallel Postulate
hypotenuse and leg triangle congruence
indirect proof
inductive reasoning
inverse of a statement
justify
logical equivalent

negation
parallel postulate(s)
postulate
proof
proof by contradiction
Pythagorean Theorem
reason
reflexive property of equality
SAS triangle congruence
SAS Similarity Theorem
SSS triangle congruence
substitution property
subtraction property of equality
symmetric property of equality
theorem
transitive property of equality
transformational proof
truth value
two-column proof
undefined terms
union of sets
valid argument

Transformational Geometry

axis of symmetry
center of a dilation
center of a rotation
clockwise (orientation)
composition
constant of proportionality
contraction
counter clockwise (orientation)
dilation
direct transformation
domain
dynamic geometry software
fixed point
function
function notation for transformations
glide reflection
group
half-turn
identity
image
inverse of a transformation
isometry
mapping (function)
opposite transformation
orientation
preimage
reflection
rotation
rotational symmetry
symmetry
tessellation
transformation
translational geometry
translation

Coordinate Geometry

abscissa
analytical geometry
analytical proof
Cartesian coordinates
Cartesian plane
center-radius equation of circle
coordinate
coordinate geometry
coordinate plane
distance between two points
origin
point slope equation of a line
rectangular coordinates
slope-intercept equation of a line
three-dimensional space
two-dimensional space
vector
x-axis
x-intercept
y-axis
y-intercept
z-axis