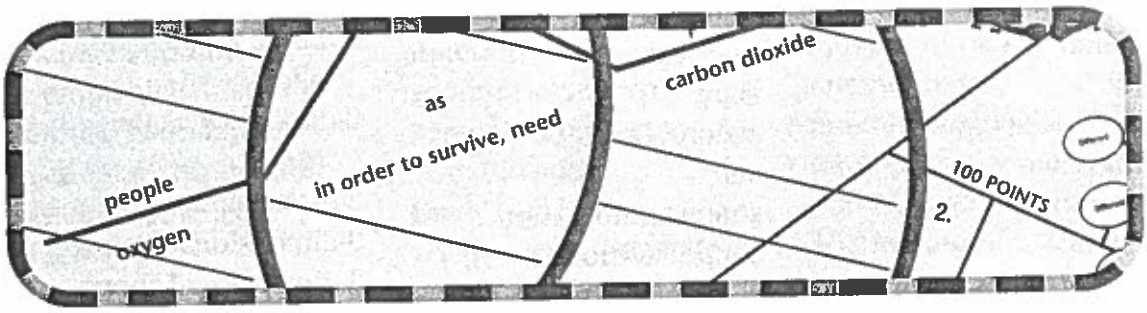
B Academic Vocabulary Word Lists



In this section, 7,923 vocabulary terms are listed for 11 subject areas:

1. Mathematics
2. Science
3. English language arts
4. History
5. Geography
6. Civics
7. Economics
8. Health
9. Physical education
10. The Arts
11. Technology

The terms for all subject areas are reported at four levels:

Level 1: grades K–2
Level 2: grades 3–5
Level 3: grades 6–8
Level 4: grades 9–12

Vocabulary Terms

Readers should note that proper names are listed alphabetically by first name as opposed to last name. Also, some entries are alphabetized on the basis of the article *the*.

Mathematics | Word List

Level 1

above
addition
area
behind
below
between
calendar
cardinal number
chance
circle
clock
coin
corner
day
decreasing pattern
difference
direction
distance
estimate answer
foot (measurement)
graph
greater than
grouping
guess and check
height
hour
in front
inch
increasing pattern
inside
left
length
less than
lists
location
measuring cup
minute
model
money
near
number
number line
numeral
numeric pattern
ordinal number
orientation
outcome
outside
pattern
pattern extension
pound
prediction
rectangle
right
second (time)
set
shape combination
shape division
shape pattern
similarity
size
sound pattern
square
standard measures of time
standard measures of weight
subtraction
sum
table
temperature
temperature estimation
temperature measurement
time interval
triangle
under
volume
week
whole number
width
year
zero

Level 2

2-dimensional shape
2-dimensional shape combination
2-dimensional shape decomposition
2-dimensional shape slide
2-dimensional shape turn
2-dimensional space
3-dimensional shape
3-dimensional shape combination
acute angle
addend
addition algorithm
angle
angle measurement tool
angle unit
area
associative property
bar graph
basic number combinations
capacity
centimeter
certainty (probability)
circumference
classes of triangles
cluster
common denominator

Level 2 (cont.)

common fractions
commutative property
conservation of area
constant
corresponding angles
corresponding sides
cube
cylinder
data
data cluster
data collection method
decimal
decimal addition
decimal division
decimal estimation
decimal multiplication
decimal subtraction
diagram
different size units
distributive property
dividend
divisibility
division
elapsed time
English system of measurement
equation
equilateral triangle
equivalent forms
equivalent fractions
equivalent representation
estimation
estimation of fractions
estimation of height
estimation of length
estimation of width
even numbers
event likelihood
expanded notation
extreme value
faces of a shape
factors
flip transformation
fraction
fraction addition
fraction division
fraction multiplication
fraction subtraction
fractions of different size
front-end digits
front-end estimation
function
geometric pattern
geometric patterns extension
gram
greatest common factor
growing pattern
histogram
horizontal axis
identity property
improbability
improper fraction
inequality
inequality solutions
intersection of shapes
invalid argument
investigation
irrelevant information in a problem
isosceles triangle
least common multiple
line graph
linear pattern
mass
mean
measurement
measures of central tendency
measures of height
measures of length
measures of width
median
meter
metric system
midpoint
mixed numbers
mode
multiple
multiplication
negative number
number of faces
number pairs
number sentence
number triplet
obtuse angle
odd numbers
open sentence
order of operations
parallel lines
parallelogram
parallelogram formula
part to whole
path
pattern addition
pattern subtraction
percent
perimeter
perpendicular lines
pie chart
positive number
prime factorization
prime number
prism
probability
process of elimination
product

Mathematics | Word List

Level 2 (cont.)

proof
pyramid
quotient
rectangle formula
rectangular prism
reduced form
relative distance
relative magnitude
relative magnitude of fractions
relative size
relevant information in a problem
remainder
repeating pattern
restate a problem
reversing order of operations
rhombus
right angle
rotation
rounding
ruler
same size units
sample
scale
shape similarity
shape symmetry
shape transformation
shrinking pattern
sphere
standard vs. nonstandard units
studies
subset
subtraction algorithm
surface area
survey
symbolic representation
tallies
time zone
trial & error
triangle formula
truncation
unit conversion
unit differences
unlike denominators
valid argument
variability
Venn diagram
verbal representation of a problem
verification
vertical axis
volume measurement
volume of irregular shapes
volume of rectangular solids

Level 3

3-dimensional shape cross section
3-dimensional space
addition of fractions
algebraic expression
algebraic expression expansion
algebraic representation
algebraic step function
alternate interior angle
angle bisector
approximate lines
area model
area of irregular shapes
array
axis of symmetry
base 10
base 60
benchmarking
biased sample
blueprint
box & whisker plot
certainty of conclusions
circle formula
circumference formula
combining like terms
complementary angle
complementary event
complex problem
composite number
congruence
conjecture
constant difference
constant rate of change
constant ratio
convert large number to small number
convert small number to large number
coordinate geometry
coordinate plane
coordinate system
counter example
counting procedure
cube number
cube root
cubic unit
data display error
data extreme
data gap
data set
deductive argument
deductive prediction
defining properties of shapes/figures

Level 3 (cont.)

dilation
dispersion
distance formula
enlarging transformation
equal ratios
equation systems
experiment
exponent
exponential notation
fair chance
formula for missing values
frequency
frequency distribution
graphic representation of function
graphic solution
grid
growth rate
inductive reasoning
input/output table
integer
intercept
intersecting lines
irregular polygon
iterative sequence
large sample
limited sample
line symmetry
linear arithmetic sequence
linear equation
linear geometric sequence
linear units
logic ALL
logic AND
logic IF/THEN
logic NONE
logic NOT
logic OR
logic SOME
mathematical expression
maximum
method selection
minimum
multiple problem-solving strategies
multiple strategies for proofs
multiplication algorithm
mutually exclusive events
networks
nominal data
nondecimal numeration system
nonlinear equation
nonlinear function
nonroutine vs. routine problems
number property
number systems
number theory
odds
ordered pairs
outliers
overestimation
parallel figures
pattern division
pattern multiplication
pattern recognition
percents above 100
percents below 1
perimeter formula
perpendicular bisector
perspective
pictorial representation
place holder
planar cross section
plane
plane figure
polygon
precision of measurement
prime factor
problem formulation
problem space
problem types
projection
proportion
proportional gain
quadratic equation
quadrilateral
random number
random sample
random variable
range
range of estimations
rate
rate of change
rational number
rectangular coordinates
recursive sequence
reference set
reflection transformation
relative frequency
relatively prime
reliability
Roman numeral
root
rotation symmetry
sample selection techniques
sample space
sampling error
scale drawing

Mathematics | Word List

Level 3 (cont.)

scale map
scale transformation
scatter plot
scientific notation
sequence
shrinking transformation
significant digits
similar proportions
similarity vs. congruence
simplification
slide transformation
slope
slope intercept formula
solid figure
solution algorithm
solution probabilities
spreadsheet
square number
square root
square units
stem & leaf plot
straight edge & compass
substitution for unknowns
supplementary angle
table representation of functions
table representation of probability
tessellation
tetrahedron
theoretical probability
thermometer
trapezoid formula
tree diagram model
triangle sides
underestimation
unit size
unknown
variable
variable change
vertex
volume formula
volume of cylinder
volume of prism
volume of pyramid
work backward
written representation

Level 4

absolute error
absolute function
absolute value
acceleration
add radical expressions
addition counting procedure
algebraic function
angle of depression
arc
area under curve
asymptote of function
base e
binary system
bivariate data
bivariate data transformation
bivariate distribution
Cartesian coordinates
categorical data
central angle
central limit theorem
chord
circle without center
circular function
classes of functions
combination
complex number
compound event
compound interest
conditional probability
confidence interval
conjugate complex number
continuity
continuous probability distribution
control group
correlation
cosine
critical paths method
curve fitting
curve fitting median method
decibel
density
dependent events
derivation
dilation of object in a plane
direct function
direct measure
discrete probability
discrete probability distribution
divide radical expressions
domain of function
empirical verification
equivalent forms of equations
equivalent forms of inequalities
expected value
experimental design
experimental probability

Level 4 (cont.)

exponent
exponential function
factorial
factorial notation
Fibonacci sequence
finite graph
force
formal mathematical induction
fraction inversion
function composition
function notation
geometric function
global/local behavior
imaginary number
independent events
independent trials
indirect measure
inflection
interest
inverse function
irrational number
isometry
law of large numbers
law of probability
limit
line equation
line segment
line segment congruence
line segment similarity
line through point not on a line
linear
log function
logarithm
logarithmic function
mathematical theories
matrix
matrix addition
matrix division
matrix equation
matrix inversion
matrix multiplication
matrix subtraction
minimum/maximum of function
monitor progress of a problem
monomial
Monte Carlo simulation
multiply radical expressions
natural log
natural number
nature of deduction
negative exponent
normal curve
number subsystems
parallel box plot
parameter
parameter estimate
parametric equation
periodic function
permutation
phase shift
pi
point of tangency
polar coordinates
polynomial
polynomial addition
polynomial division
polynomial function
polynomial multiplication
polynomial solution by bisection
polynomial solution by sign change
polynomial solution successive approximation
polynomial subtraction
population
postulate
powers
precision of estimation
probability distribution
proof paragraph
protractor
Pythagorean theorem
quartile deviation
radical expression
radical function
radius
random sampling technique
range of function
rational function
real numbers
real-world function
reciprocal
recurrence equation
recurrence relationship
recursive equation
reflection in plane
reflection in space
regression coefficient
regression line
relative error
representativeness of sample
Richter scale
right triangle geometry
roots & real numbers
roots to determine cost
roots to determine profit
roots to determine revenue

Mathematics | Word List

Level 4 (cont.)

rotation in plane
sample statistic
sampling distribution
scalar
series
series circuit
sigma notation
similar figures
sine
sinusoidal function
smallest set of rules
speed
spurious correlation
standard deviation
statistical experiment
statistical regression
statistic
step function
strategy efficiency
strategy generation technique
subtract radical expressions
successive approximations
summary statistic
surface area cone
surface area cylinder
surface area sphere
synthetic geometry
systems of inequalities
tangent
term
theorem
theorem direct proof
theorem indirect proof
transversal
treatment group
trigonometric ratio
trigonometric relation
truth table proof
two-way tables
U.S. customary system
unit analysis
univariate data
univariate distribution
upper/lower bounds
validity
variance
vector
vector addition
vector division
vector multiplication
vector subtraction
velocity
vertex edge graph