

Prealgebra 1

Pre-Algebra Sheet 1

Order of Operations
 PARENTHESIS
 EXPONENTS
 MULTIPLICATION
 DIVISION
 ADDITION
 SUBTRACTION

Area and Volume
 $A = \frac{1}{2}bh$
 $A = \frac{1}{2}(a+b)h$
 $A = \pi r^2$
 $V = \frac{1}{3}\pi r^2 h$

Properties
 Commutative (addition) $a + b = b + a$
 Associative (addition) $(a + b) + c = a + (b + c)$
 Distributive $a(b + c) = ab + ac$
 Multiplicative $a(b \cdot c) = (a \cdot b) \cdot c$
 Inverse $a + (-a) = 0$
 Zero Property $a \cdot 0 = 0$

Graphing
 Plotting coordinates
 Slope $m = \frac{y_2 - y_1}{x_2 - x_1}$
 Line equation $y = mx + b$

Distance Formula
 $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

Midpoint
 $M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$

Algebra I 1

ALGEBRA I, Sheet 1

Adding & Subtracting positive and negative numbers
 SAME SIGN ADD
 DIFFERENT SIGN SUBTRACT

Multiplying & Dividing positive and negative numbers
 SAME SIGN POSITIVE +
 DIFFERENT SIGN NEGATIVE -

Order of Operations
 PEMDAS
 Please (Parentheses)
 Exponents (Exponents)
 Multiply (Multiplication)
 Divide (Division)
 Add (Addition)
 Subtract (Subtraction)

Linear Equations
 Slope $m = \frac{y_2 - y_1}{x_2 - x_1}$
 Point-Slope Form
 Slope-Intercept Form

Systems of Equations
 Substitution
 Elimination

Quadratic Equations
 Standard Form
 Vertex Form
 Factoring

Geometry 1

GEOMETRY, Sheet 1

Area and Volume
 Parallelogram $A = bh$
 Triangle $A = \frac{1}{2}bh$
 Circle $A = \pi r^2$
 Cylinder $V = \pi r^2 h$

Angles
 Complementary
 Supplementary
 Vertical Angles

Triangles
 Congruence
 Similarity

Right Triangles
 Pythagorean Theorem
 SOH-CAH-TOA

Trigonometry
 Sine
 Cosine
 Tangent

Algebra II 1

ALGEBRA 2, Sheet 1

Real Numbers
 Natural
 Integer
 Rational
 Irrational

Properties of Exponents
 $a^m \cdot a^n = a^{m+n}$
 $\frac{a^m}{a^n} = a^{m-n}$

Factoring
 GCF
 Difference of Squares
 Trinomials

Graphing
 Linear
 Quadratic
 Exponential

Complex Numbers
 Addition
 Multiplication

Matrices
 Addition
 Multiplication

Prealgebra 2

Pre-Algebra Sheet 1

Adding, Subtracting Integers
 SAME SIGN ADD (+ means add)
 DIFFERENT SIGN SUBTRACT (- means subtract)

Multiplying, Dividing Integers
 SAME SIGN POSITIVE (+ means positive)
 DIFFERENT SIGN NEGATIVE (- means negative)

Order of Operations
 PARENTHESIS
 EXPONENTS
 MULTIPLICATION
 DIVISION
 ADDITION
 SUBTRACTION

Area and Volume
 Rectangle $A = lw$
 Triangle $A = \frac{1}{2}bh$
 Circle $A = \pi r^2$

Graphing
 Slope $m = \frac{y_2 - y_1}{x_2 - x_1}$
 Line equation $y = mx + b$

Algebra I 2

ALGEBRA I, Sheet 2

Linear Equations
 Slope-Intercept Form
 Point-Slope Form

Systems of Equations
 Substitution
 Elimination

Quadratic Equations
 Factoring
 Quadratic Formula

Inequalities
 Solving Inequalities

Graphing Inequalities
 Number Line
 Coordinate Plane

Absolute Value Equations
 Solving Absolute Value Equations

Geometry 2

GEOMETRY, Sheet 2

Angles
 Complementary
 Supplementary
 Vertical Angles

Triangles
 Congruence
 Similarity

Right Triangles
 Pythagorean Theorem
 SOH-CAH-TOA

Trigonometry
 Sine
 Cosine
 Tangent

Area and Volume
 Parallelogram
 Triangle
 Circle
 Cylinder

Algebra II 2

ALGEBRA 2, Sheet 2

Exponential Growth/Decay
 Growth $A(t) = P(1 + r)^t$
 Decay $A(t) = P(1 - r)^t$

Logarithms
 Properties of Logarithms

Graphing
 Linear
 Quadratic
 Exponential

Complex Numbers
 Addition
 Multiplication

Matrices
 Addition
 Multiplication

Probability
 Basic Probability