# INSTRUCTIONFL SYSTEMS INC. 

## INTEGRATED MATHEMATICS PLUS/MATHEMATICS III

ANALYTICAL GEOMETRY
AG01 - Find a point that lies on a graph
AG02 - Find the missing coordinate of a point on a line
AG03 - Find the missing coordinate of a point
AG04 - Find the quadrant in which a point lies
AG05 - Find the $X$ or $Y$ intercept on a line
AG06 - Find the equation of a line parallel to a line
AG07 - Find the area of a square given coordinates
AG08 - Find the area of a right triangle given coordinates
AG09 - Area of a triangle given coordinates
AG10 - Area of a parallelogram given coordinates
ALGEBRA
AL01 - Evaluate an expression with exponents 1
AL02 - Evaluate an expression with exponents 2
ALO3 - Evaluate an expression with exponents 3
AL04 - Evaluate an expression with fractions
AL05 - Negative exponents
AL06 - Find the sum of two trinomials
AL07 - Subtract two binomials
AL08 - Multiply two monomials
AL09 - Product of fractions with exponents
AL10 - Square of a monomial
AL11 - Product of two binomials 1
AL12 - Simplify the product of two binomials
AL13 - Product of two binomials 2
AL14 - Divide two monomials
AL15 - Square of a binomial
AL16 - Divide a polynomial by a monomial
AL17 - Solve an equation with parentheses
AL18 - Simplify an expression with parentheses
AL19 - Solve an equation with parentheses 1
AL20 - Solve an equation with parentheses 2
AL21 - Solve an equation with fractions 1
AL22 - Solve a fractional equation
AL23 - Solve an equation with fractions 2
AL24 - Solve a fractional equation
AL25 - Direct variation
AL26 - Solve an equation with a decimal

AL27 - Solve an inequality 1
AL28 - Solve an inequality 2
AL29 - Solve an inequality 3
AL30 - Consecutive integers
AL31 - Write an expression for an age problem
AL32 - Find the mean of an algebraic expression
AL33 - Solve a system of linear equations
AL34 - Express an equation in slope intercept form
AL35 - Factor quadratic trinomials
AL36 - Factor the difference of two squares 1
AL37 - Factor the difference of two squares 2
AL38 - Solve a quadratic equation by factoring
AL39 - Find the square root of a quadratic equation
AL40 - Solve a quadratic - Factoring by GCF
AL41 - Solve a quadratic difference of two squares
AL42 - Simplify radicals 1
AL43-Simplify radicals 2
AL44 - Multiply a decimal by a power of ten
AL45-Scientific notation
COMBINATORICS
COO1 - The counting principle
COO2 - Permutations
COO3 - Permutations with replacement
COO4 - Evaluating Factorials
COO5 - Permutations of $n$ things $r$ at a time

## EUCLIDEAN GEOMETRY

EG01 - Find the area of a square given the perimeter 1
EG02 - Find the area of a square given the perimeter 2
EG03 - Find the height of a triangle given area and side
EG04 - Find the change in perimeter of a rectangle
EG05 - Write an equation for area of a triangle
EG06 - Write an expression for the area of a rectangle
EG07 - Write an expression for perimeter of a triangle
EG08 - Write an expression for perimeter of a trapezoid
EG09 - Write an expression for perimeter of a pentagon
EG10 - Write an expression for a side given perimeter
EG11 - Write an expression for perimeter of a hexagon
EG12 - Volume of a rectangular prism
EG13 - Find a missing dimension given the volume
EG14 - Find the measurement of two vertical angles 1
EG15 - Find the measurement of two vertical angles 2
EG16 - Find the measurement of two adjacent angles
EG17 - Find the measurement of the angles of a triangle
EG18 - Find the measurement of the third angle of a triangle

EG19 - Find the angles of a triangle given their ratio
EG20 - Find the angles of an isosceles triangle
EG21 - Find the base angle of an isosceles triangle
EG22 - Find the vertex angle of an isosceles triangle
EG23 - Find the exterior angle of triangle 1
EG24 - Find the exterior angle of triangle 2
EG25 - Find the measure of a remote interior angle
EG26 - Parallel lines cut by a transversal 1
EG27 - Parallel lines cut by a transversal 2
EG28 - Find the measure of two corresponding angles
EG29 - Alternative interior angles 1
EG30 - Find the measures of two alternate exterior angles
EG31 - Find the measures of two alternate interior angles 2
EG32 - Complementary and supplementary angles
EG33 - Corresponding sides of similar triangles 1
EG34 - Corresponding sides of similar triangles 2
EG35 - Corresponding parts of similar triangles
EG36 - Corresponding sides of similar right triangles
EG37 - Perimeters of two similar polygons given ratio
EG38 - Solve a shadow problem
EG39 - Opposite angles of a parallelogram 1
EG40 - Opposite angles of a parallelogram 2
EG41 - Diagonals of a rectangle
EG42 - Find the area given radius or diameter
EG43 - Find the radius or diameter given area
EG44 - Find the circumference given the area
EG45 - Find the area or perimeter of a circumscribed square
EG46 - Using the Pythagorean Theorem
EG47 - Find the length of the hypotenuse of a right triangle
EG48 - Find the length of the diagonal of a rectangle
EG49 - Find the length given the side and diagonal
LOGIC
LO01 - Write logical statements in symbolic form
LOO2 - Write symbolic statements in words
LO03 - Inverse, converse and contra positive in words
LO04 - Inverse, converse and contra positive in symbols
LOO5 - Truth tables
PROBABILITY
PR01 - Probability of a single event - two items
PRO2 - Probability of a single event - three items
PR03 - Probability of a complement
PR04 - Probability with percents
PR05 - Probability with marbles
PR06 - Probability with area
PR07 - Probability with ratios
PR08 - Probability with dice
PR09 - Probability of two independent events
PR10 - Probability of two events without replacement
PR11 - Random sampling and probability

## STATISTICS

ST01 - Find the percent of a number
ST02 - Find what percent one number is of another
ST03 - Find a number when a percentage is known
ST04 - Percentiles
ST05 - Find the mode
ST06 - Find the median
ST07 - Find the mean
ST08 - Find the mean of a set of scores
ST09 - Find the number of scores above/below the mean
ST10 - Find the missing number given the mean
ST11 - Find the expression for a mean
TRANSFORMATION GEOMETRY
TG01 - Find the Image under a Translation
TG02 - Find the Image under a Rotation
TG03 - Find the Image under a Dilation
TG04 - Find the Image under a Line Reflection
WORD PROBLEMS
WP01 - Number Problems
WPO2 - Consecutive Integers
WPO3 - Ratio Problems
WP04 - Direct Variation
WP05 - Money Problems
WPO6 - Rate, Time, Distance
WP07 - Angles of a Triangle
WP08 - Complementary and Supplementary Angles
WP09 - Area and Perimeter
WP10 - Perimeter of a Rectangle
WP11 - Number Problems with Quadratics
WP12 - Quadratic Word Problems
WP13 - Inequalities
COORDINATE GRAPHICS
CG01 - Graph Points on a Coordinate Plane
CG02 - Identify Quadrants on a Coordinate Plane
CG03 - Graph Points on a Coordinate Grid
CG04 - Interpret Circle Graphs
CG05 - Interpret Bar Graphs

CG06 - Interpret Lines Graphs
CG07 - Interpret Multi-line Graphs
CG08 - Interpret Data from a Bar Graph

