INSTRUCTIONAL SYSTEMS INC.

MATHEMATICS II

DATA ANALYSIS
DA 1   Compute the mean of a set of three numbers
DA 2   Compute the mean of a set of four numbers
DA 3   Compute the mean of a set of five numbers
DA 4   Solve a word problem involving computing the mean of a set three numbers
DA 5   Solve a word problem involving computing the mean of a set four numbers
DA 6   Solve a word problem involving computing the mean of a set five numbers
DA 7   Find the mode of a set of data
DA 8   Find the mode of a set of pre-test scores
DA 9   Find the mode of a set of HSPT test scores
DA 10   Find the median of a set of numbers
DA 11   Find the median annual gross income of several households
DA 12   Find the median selling price of several homes
DA 13   Identify the error in computing a test score
DA 14   Recompute an average when new data has been added
DA 15   Recompute an average when a piece of data has been removed
DA 16   Calculate the caloric intake from a table
DA 17   Calculate the calories burned from a table
DA 18   Predicting the results of an election based on a survey
DA 19   Predicting the results of a local election based on early results
DA 20   Describe the same statistics in a number of ways
DA 21   Compute the value of real estate sold based on a realtor's income
DA 22   Compute the average number of cars sold monthly based on earnings
DA 23   Find the mean of a set of temperatures
DA 24   Find the mean gain (or loss) of the stock market over a five-day period
DA 25   Compute the mean, mode, median and range of a set of test scores
DA 26   Compute the mean, mode, median and range of a set of prices
DA 27   Find the probability of a single event
DA 28   Using probability to predict an outcome
DA 29   Find the probability of randomly selecting a given point
DA 30   Determine the probability of two independent events

FUNDAMENTALS OF ALGEBRA
FA 1   Solve an equation involving integers in the form of $ax + b = c$
FA 2   Solve an equation involving integers in the form of $ax = bx + c$
FA 3   Solve an equation involving integers in the form of $ax + c = cx + d$

FA 4	Solve an equation involving parenthesis in the form of $a(bx+c)=d$
FA 5	Solve an equation involving parenthesis in the form of $ax+(bx+c)=d$
FA 6	Solve an equation involving parenthesis in the form of $(ax+b)+(cx+d)=e$
FA 7	Solve an equation involving decimals in the form of $.ax+.b=.c$
FA 8	Solve an equation involving decimals in the form of $.ax=.bx+c$
FA 9	Solve an equation involving decimals in the form of $.ax+b=.cx+d$
FA 10	Solve an equation involving a fraction in the form of $ax/b+c=d$
FA 11	Solve an inequality
FA 12	Solve a word problem involving an average
FA 13	Solve a word problem involving a sporting event
FA 14	Evaluate an expression in function notation
FA 15	Express the perimeter of a rectangle as a variable
FA 16	Express the area of a shaded region as a variable
FA 17	Use a formula for area of a triangle
FA 18	Use a formula for area of a rectangle
FA 19	Solve the missing dimension in the formula for area of a triangle
FA 20	Solve the missing dimension in the formula for area of a rectangle
FA 21	Write an expression for the area of a right triangle as a variable
FA 22	Write an expression for the area of a rectangle as a variable

MEASUREMENT AND GEOMETRY
MG 1	Arrange units of measure in order
MG 2	Compare English and metric units of measure
MG 3	Compute the ingredients needed for a recipe
MG 4	Find the area of an irregular figure
MG 5	Compare the area/perimeter of two figures
MG 6	Calculate the cost of carpeting given room dimensions
MG 7	Compute the area of the shaded portion in a rectangle
MG 8	Describe the effect of changing dimensions on area/perimeter
MG 9	Calculate the cost of carpeting given the floor plan
MG 10	Identify similar figures
MG 11	Find the measure of an exterior angle of a triangle
MG 12	Approximate the length of a diagonal of a square
MG 13	Identify a figure under a rotation

NUMERICAL OPERATIONS
NO 1	Solve a word problem involving coins
NO 2	Compare two numbers written in scientific notation
NO 3	Find equivalent fractions
NO 4	Compare two decimal numbers raised to a power
NO 5	Identify why one number is not a factor of another
NO 6	Estimate the product of two decimals
NO 7	Solve a word problem involving a sporting event
NO 8	Solve a word problem involving percents
NO 9	Use a formula involving time in hours and minutes
NO 10	Solve a word problem requiring rounding off

NO 11	Solve a word problem involving estimation
NO 12	Calculate temperature in a table
NO 13	Approximate a square root
NO 14	Compute the balance in a checking account
NO 15	Compare gross pay with overtime
NO 16	Calculate the correct number based on two guesses
NO 17	Compute real estate tax based on assessed value
NO 18	Calculate the balance on a loan
NO 19	Compute net profit from the sale of stock
NO 20	Calculate Earnings from a paycheck with deductions
NO 21	Solve a word problem involving two purchases

PATTERNS AND RELATIONSHIPS

PR 1	Identify the formula used to calculate a test score
PR 2	Find the pattern relating sides and diagonals from a vertex
PR 3	Identify the n-th letter in a pattern
PR 4	Identify the formula that correctly describes a procedure
PR 5	Identify the number of objects in a pattern
PR 6	Identify a number in a sequence using patterns of end digits
PR 7	Identify the number of objects needed to complete a pattern
PR 8	Identify the linear equations containing a set of points
PR 9	Find the pattern relating to sides and diagonals in a polygon
PR 10	Find the sum of numbers in a pattern