WEST VIRGINIA ADULT BASIC EDUCATION SKILLS CHECKLIST

ABE MATHEMATICS

Federal Functioning Level 1 – Beginning Literacy (0–1.9)

Student:	Program:
Instructor:	Date Enrolled:

M.0 PRE-COMPUTATIONAL MATH SKILLS		Date & Initial
0.1.1	Recognize and count numbers through 999.	
0.1.2	Count by twos, fives, and tens to 100.	
0.1.3	Identify even and odd numbers.	
0.1.4	Identify missing numbers in a sequence.	

M.1 WHOLE NUMBERS		Date & Initial
1.1.1	Add whole numbers up to three digits (without carrying).	
1.1.2	Subtract whole numbers up to three digits (without borrowing).	
1.1.3	Multiply whole numbers through twelve using numerals.	

M.2 COUNT MONEY AND MAKE CHANGE		Date & Initial
2.1.1	Recognize currency (up to $20.00) and coins; count and trade pennies, nickels, dimes, and quarters to 100 cents.	
2.1.2	Count back change (up to $5.00) using coins and currency. (Ex., The student will count change to be received from a $5.00 bill used for a $1.70 purchase.)	

M.3 FRACTION		Date & Initial
3.1.1	Identify fractional parts (1/4, 1/3, 1/2) and whole.	

M.9 UNITS OF TIME AND MEASUREMENT		Date & Initial
9.1.1	Read time to the nearest hour and half hour.	
9.1.2	Understand use of standard linear measurements (inches, feet).	
9.1.3	Understand use of standard measurements (cups, pints, quarts, and gallons).	

M.13 GEOMETRY		Date & Initial
13.1.1	Identify and describe triangles, squares, rectangles, and circles.	

Performance Descriptors

MATHEMATICS – BEGINNING LITERACY – LEVEL 1
Each IGO should be mastered with a minimum score of 80%.

Pre-Computational Math Skills

M.0.1.1 Recognize and count numbers through 999 by completing a number chart with random prompts.
M.0.1.2 Count by twos, fives, and tens to one hundred, either orally or through a written exercise.
M.0.1.3 Identify a minimum of ten even and odd numbers.
M.0.1.4 Identify a minimum of ten missing numbers in a sequence.

Whole Numbers

M.1.1.1 Complete a minimum of ten problems that require adding whole numbers up to three digits (without carrying).
M.1.1.2 Complete a minimum of ten problems that require subtracting whole numbers up to three digits (without borrowing).
M.1.1.3 Complete a minimum of ten problems that require multiplying whole numbers through twelve using numerals.

Count Money and Make Change

M.2.1.1 Complete a minimum of ten problems that require recognizing currency (up to $20.00) and coins; complete a minimum of ten problems that require counting and trading pennies, nickels, dimes, and quarters to 100 cents.
M.2.1.2 Given a minimum of ten different situations, count back change (up to $5.00) using coins and currency. (Ex., The student will count change to be received from a $5.00 bill used for a $1.70 purchase.)

Fractions

M.3.1.1 Identify a minimum of two examples each of the fractional parts (1/4, 1/3, 1/2) and whole.

Units of Time and Measurement

M.9.1.1 Complete a minimum of five problems that require reading time to the nearest hour and five problems to the nearest half hour.
M.9.1.2 Complete a minimum of ten statements that demonstrate an understanding of linear measurement. (For example, the length of a book is measured in (a) inches (b) feet.)
M.9.1.3 Complete a minimum of ten problems that demonstrate an understanding of standard measurements (cups, pints, quarts, and gallons). For example, a glass of milk is measured in (a) quarts (b) cups (c) pints.

Geometry

M.13.1.1 Identify a triangle, square, rectangle, and circle; draw an example of each.

WEST VIRGINIA ADULT BASIC EDUCATION SKILLS CHECKLIST

ABE MATHEMATICS

Federal Functioning Level 2 – Beginning Basic (Level 2–3.9)

Student:	Program:
Instructor:	Date Enrolled:

M.1 WHOLE NUMBERS		Date & Initial
1.2.1	Identify place value to at least the thousands place.	
1.2.2	Add whole numbers up to three digits using carrying.	
1.2.3	Subtract whole numbers up to three digits using borrowing.	
1.2.4	Multiply whole numbers up to three digits using carrying.	
1.2.5	Divide whole numbers up to hundreds by one digit.	
1.2.6	Solve single-step, real-life word problems involving addition and subtraction using up to three-digit whole numbers.	

M.3 FRACTIONS		Date & Initial
3.2.1	Identify and demonstrate an understanding of fractional parts including ¼, ⅓, ½, and whole.	

M.4 DECIMALS		Date & Initial
4.2.1	Identify and write amounts of money using decimals and words.	

M.6 APPLY MATH IN A FUNCTIONAL CONTEXT		Date & Initial
6.2.1	Solve simple addition and subtraction problems by computing costs from a restaurant menu.	

M.8 ESTIMATION		Date & Initial
8.2.1	Use rounding and estimation for tens and hundreds.	

M.9 UNITS OF TIME AND MEASUREMENT		Date & Initial
9.2.1	Identify clock time and calendar dates using both words and numbers.	
9.2.2	Identify fourths, halves, and whole numbers on a ruler (inches) and weight scales (pounds).	
9.2.3	Identify and select appropriate measures for capacity (cups, pints, quarts, and gallons) and weight (ounces and pounds).	
9.2.4	Interpret temperature from Fahrenheit scale in various situations.	

M.10 TABLES, CHARTS, GRAPHS, AND MAPS		Date & Initial
10.2.1	Solve problems using simple graphs (pictograph, bar, line, and circle), tables or distances on maps.	

Performance Descriptors

MATHEMATICS – BEGINNING BASIC – LEVEL 2
Each IGO should be mastered with a minimum score of 80%.

Whole Number

M.1.2.1 Complete a minimum of ten problems that require identifying place value to at least the thousands place.

M.1.2.2 Complete a minimum of ten problems that require adding whole numbers up to three digits using carrying.

M.1.2.3 Complete a minimum of ten problems that require subtracting whole numbers up to three digits using borrowing, including borrowing from zeroes.

M.1.2.4 Complete a minimum of ten problems that require multiplying whole numbers up to three digits using carrying.

M.1.2.5 Complete a minimum of ten problems that require dividing whole numbers up to hundreds by one digit, including problems with remainders.

M.1.2.6 Solve a minimum of ten single-step, real-life word problems involving addition, and ten similar problems involving subtraction using up to three-digit whole numbers.

Fractions

M.3.2.1 Identify at least one example of the following: 1/4, 1/2, 1/3, and whole. Demonstrate at least one of each. For example, the student will fold paper or cut a candy bar into the designated parts.

Decimals

M.4.2.1 Solve a minimum of ten problems that require identification of money using decimals (e.g., $5.45); solve a minimum of ten problems that require identification of money using words (e.g., five dollars and forty-five cents).

Apply Math in a Functional Context

M.6.2.1 Solve a minimum of five problems that require simple addition and subtraction by computing costs from a restaurant menu.

Estimation

M.8.2.1 Round a minimum of five numbers to tens and a minimum of five numbers to hundreds. Solve a minimum of five problems using estimation that involves tens and hundreds. For example, estimate the sum of 406 and 798 (nearest hundred) or estimate the difference between 836 and 425 (nearest ten).

Units of Time and Measurement

M.9.2.1 Identify clock time using both words and numbers in a minimum of ten problems; identify calendar dates using both words and numbers in a minimum of ten problems.

M.9.2.2 Solve a minimum of five problems that require the identification of fourths, halves, and whole numbers on a ruler (inches); solve a minimum of five problems that require the identification of fourths, halves, and whole numbers on weight scales (pounds).

M.9.2.3 Solve a minimum of five problems that require the identification and selection of appropriate measures for capacity (cups, pints, quarts, and gallons) and five problems with appropriate measures for weight (ounces and pounds).

M.9.2.4 Identify a minimum of five temperatures on a Fahrenheit scale and complete a minimum of five statements that demonstrate an understanding of temperatures in various situations. Example: A very cold day is (a) 70^0 F (b) 56^0 F (c) 16^0 F.

Tables, Charts, Graphs, and Maps

M.10.2.1 Complete at least five questions each on three of the following: simple pictograph, bar graph, line graph, circle graph, table, or map.

WEST VIRGINIA ADULT BASIC EDUCATION SKILLS CHECKLIST

ABE MATHEMATICS

Federal Functioning Level 3 – Low Intermediate (4.0–5.9)

Student:	Program:
Instructor:	Date Enrolled:

M.1 WHOLE NUMBERS		Date & Initial
1.3.1	Add whole numbers up to four digits.	
1.3.2	Subtract whole numbers up to four digits.	
1.3.3	Multiply whole numbers up to four digits.	
1.3.4	Divide a four-digit number by at least a three-digit number.	
1.3.5	Compute using the correct order of operations to solve problems including multiply, divide, add, and subtract (M, D, A, S).	
1.3.6	Solve single-step, real-life word problems involving multiplication and division using up to three-digit whole numbers.	

M.3 FRACTIONS		Date & Initial
3.3.1	Identify and calculate equivalent fractions (fourths, thirds, halves, eighths, fifths, and tenths).	
3.3.2	Add and subtract fractions (fourths, thirds, halves, eighths, fifths, and tenths).	
3.3.3	Multiply fractions (fourths, thirds, halves, eighths, fifths, and tenths).	
3.3.4	Divide fractions (fourths, thirds, halves, eighths, fifths, and tenths).	

M.4 DECIMALS		Date & Initial
4.3.1	Identify place value for decimals (tenths, hundredths, and thousandths).	
4.3.2	Round decimals to whole numbers.	
4.3.3	Convert decimals to fractions and fractions to decimals (fourths, thirds, halves, eighths, fifths, and tenths).	

M.6 APPLY MATH IN A FUNCTIONAL CONTEXT		Date & Initial
6.3.1	Compare prices and recognize best buys.	
6.3.2	Interpret information on a payroll stub.	
6.3.3	Solve problems using money to write a check and balance a check register.	

M.9 UNITS OF TIME AND MEASUREMENT		Date & Initial
9.3.1	Calculate units of time using a clock and calendar.	
9.3.2	Identify and select appropriate linear measurements (inches, feet, yards, and miles).	
9.3.3	Identify and select appropriate metric measurement (including meters, liters, and grams).	

M.10 TABLES, CHARTS, GRAPHS, AND MAPS		Date & Initial
10.3.1	Measure and compute direct distances using scales/legends on a simple map.	

M.13 GEOMETRY		Date & Initial
13.3.1	Recognize basic geometric shapes (triangle, square, circle, rectangle, hexagon, and pentagon).	
13.3.2	Calculate perimeter of squares and rectangles using whole numbers.	

Performance Descriptors

MATHEMATICS – LOW INTERMEDIATE – LEVEL 3
Each IGO should be mastered with a minimum score of 80%.

Whole Numbers

M.1.3.1 Complete a minimum of ten problems involving the addition of whole numbers up to four digits.
M.1.3.2 Complete a minimum of ten problems involving the subtraction of whole numbers up to four digits.
M.1.3.3 Complete a minimum of ten problems involving the multiplication of whole numbers up to four digits.
M.1.3.4 Complete a minimum of ten problems involving the division of a four-digit number by at least a three-digit number.
M.1.3.5 Compute using the correct order of operations to solve a minimum of ten problems including multiply, divide, add, and subtract (M, D, A, S).
M.1.3.6 Solve a minimum of ten single-step, real-life word problems involving multiplication and division using up to three-digit whole numbers.

Fractions

M.3.3.1 Identify and calculate equivalent fractions (fourths, thirds, halves, eighths, fifths, and tenths) solving a minimum of five problems each that require (1) reducing, (2) raising fractions to higher terms, (3) changing improper fractions to whole or mixed numbers, and (4) changing mixed and whole numbers to improper fractions.
M.3.3.2 Solve a minimum of ten fraction problems (fourths, thirds, halves, eighths, fifths, and tenths) that include addition of like and unlike denominators; subtract a minimum of ten similar fraction problems that include like and unlike denominators and borrowing from whole and mixed numbers.
M.3.3.3 Solve a minimum of ten fraction problems (fourths, thirds, halves, eighths, fifths, and tenths) that include multiplication of fractions, whole numbers, and mixed fractions.
M.3.3.4 Solve a minimum of ten fraction problems (fourths, thirds, halves, eighths, fifths, and tenths) that include division of fractions, whole numbers, and mixed fractions.

Decimals

M.4.3.1 Identify the place value for a minimum of five decimals each involving tenths, hundredths, and thousandths.
M.4.3.2 Round a minimum of ten decimals to whole numbers.
M.4.3.3 Convert a minimum of five decimals to fractions and five fractions to decimals (fourths, thirds, halves, eighths, fifths, and tenths).

Apply Math in a Functional Context

M.6.3.1 Compare prices and recognize best buys in a minimum of ten problems.
M.6.3.2 Answer a minimum of eight questions that require the interpretation of a payroll stub.
M.6.3.3 Write at least two checks and complete a check register that includes beginning and ending balances and at least five transactions (deposits and checks).

Units of Time and Measurement

M.9.3.1 Solve a minimum of five problems that require calculating units of time using a clock; solve a minimum of five similar problems using a calendar.
M.9.3.2 Identify and select appropriate linear measurements (inches, feet, yards, and miles) in a minimum of ten examples.
M.9.3.3 Identify and select appropriate metric measurement (including meters, liters, and grams) in a minimum of ten examples.

Tables, Charts, Graphs, and Maps

M.10.3.1 Measure and compute a minimum of ten direct distances using scales/legends on a simple map.

Geometry

M.13.3.1 Identify a minimum of one example of each of the following basic geometric shapes: triangle, square, circle, rectangle, hexagon and pentagon.
M.13.3.2 Calculate the perimeter of five squares and five rectangles using whole numbers.

WEST VIRGINIA ADULT BASIC EDUCATION SKILLS CHECKLIST

ABE MATHEMATICS

Federal Functioning Level 4 – High Intermediate (6–8.9)

Student:	Program:
Instructor:	Date Enrolled:

NOTE: Essential IGOs related to the GED Tests are underlined.

M.1 WHOLE NUMBERS		Date & Initial
1.4.1	Solve real-life, multi-step whole number word problems.	

M.3 FRACTIONS		Date & Initial
3.4.1	Solve a minimum of ten real-life word problems using fractions.	

M.4 DECIMALS		Date & Initial
4.4.1	Add decimals; add decimals and whole numbers.	
4.4.2	Subtract decimals; subtract decimals and whole numbers.	
4.4.3	Multiply decimals; multiply decimals and whole numbers.	
4.4.4	Divide decimals; divide decimals and whole numbers.	
4.4.5	Solve real-life word problems using decimals.	

M.5 PERCENTS		Date & Initial
5.4.1	Convert percents to decimals and fractions.	
5.4.2	Compute percents by finding the part, the percent and the whole.	
5.4.3	Solve real-life word problems using percents.	

M.6 APPLY MATH IN A FUNCTIONAL CONTEXT		Date & Initial
6.4.1	Solve problems relating to payroll stubs.	
6.4.2	Interpret and calculate sales tax, rebates, and discounts.	
6.4.3	Compute and compare unit pricing using division of decimals.	
6.4.4	Interpret catalog order forms and calculate cost of multiple items, shipping and handling, and sales tax as required.	

M.9 UNITS OF TIME AND MEASUREMENT		Date & Initial
9.4.1	Solve problems using conversions of units of weight, length/width, and capacity.	

M.10 TABLES, CHARTS, GRAPHS, AND MAPS		Date & Initial
10.4.1	Solve problems using maps to compute travel time, gas consumption, and travel costs.	
10.4.2	Develop and draw conclusions from tables and graphs using instructor or student selected information.	

M.11 INTEGERS		Date & Initial
11.4.1	Identify positive and negative numbers on a number line.	
11.4.2	Add positive and negative numbers.	
11.4.3	Subtract positive and negative numbers.	
11.4.4	Multiply positive and negative numbers.	
11.4.5	Divide positive and negative numbers.	

M.12 ALGEBRA		Date & Initial
12.4.1	Solve simple algebraic equations (e.g., 5x=40, 2x+4=10)	

Performance Descriptors

MATHEMATICS – HIGH INTERMEDIATE – LEVEL 4
Each IGO should be mastered with a minimum score of 80%.

Whole Numbers

M.1.4.1 Solve a minimum of ten real life, multi-step whole number word problems.

Fractions

M.3.4.1 Solve a minimum of ten real-life word problems using fractions.

Decimals

M.4.4.1 Solve a minimum of five problems involving adding decimals; solve a minimum of five problems involving adding decimals and whole numbers, both vertically and horizontally.

M.4.4.2 Solve a minimum of five problems involving subtracting decimals; solve a minimum of five problems involving subtracting decimals and whole numbers, both vertically and horizontally.

M.4.4.3 Multiply a minimum of five problems involving decimals; multiply a minimum of five problems involving decimals and whole numbers, both vertically and horizontally.

M.4.4.4 Divide a minimum of five problems involving decimals; divide a minimum of five problems involving decimals and whole numbers.

M.4.4.5 Solve a minimum of ten real-life word problems using decimals that require addition, subtraction, multiplication, and division.

Percents

M.5.4.1 Convert a minimum of ten percents to decimals and fractions.

M.5.4.2 Compute a minimum of five percent problems each involving (1) finding the part, (2) finding the percent, and (3) finding the whole.

M.5.4.3 Solve a minimum of fifteen real-life word problems with five each involving the three operations in M.5.4.2.

Apply Math in a Functional Context

M.6.4.1 Solve a minimum of eight problems relating to payroll stubs.

M.6.4.2 Interpret and calculate a minimum of five problems each involving sales tax, rebates, and discounts.

M.6.4.3 Solve a minimum of ten problems that require computing and comparing unit pricing using division of decimals.

M.6.4.4 Accurately complete a catalog order form that lists at least five items for sale. List unit prices, amount of money for purchases, calculate a subtotal, tax, shipping, and total costs.

Units of Time and Measurement

M.9.4.1 Convert a minimum of ten units of weight, length, and capacity that include ounces, pounds, tons, inches, feet, yards, cups, pints, quarts, and gallons; complete five reading problems that use conversions of weight, length, and capacity.

Tables, Charts, Graphs, and Maps

M.10.4.1 Solve a minimum of ten problems using maps to compute travel time, gas consumption and travel costs.

M.10.4.2 Develop and draw conclusions from a table or graph (pictograph, circle graph, bar graph, or line graph).

Integers

M.11.4.1 Identify a minimum of ten positive and negative numbers on a number line.

M.11.4.2 Add a minimum of ten problems involving positive and negative numbers.

M.11.4.3 Subtract a minimum of ten problems involving positive and negative numbers.

M.11.4.4 Multiply a minimum of ten problems involving positive and negative numbers.

M.11.4.5 Divide a minimum of ten problems involving positive and negative numbers.

Algebra

M.12.4.1 Solve a minimum of ten simple algebraic equations (e.g., $5x = 40$, $2x + 4 = 10$).

WEST VIRGINIA ADULT BASIC EDUCATION SKILLS CHECKLIST

ABE MATHEMATICS

Federal Functioning Level 5 – Low Adult Secondary (9–10.9)

Student:	Program:
Instructor:	Date Enrolled:

NOTE: Essential IGOs related to the GED Tests are underlined.

M.3 FRACTIONS		Date & Initial
3.5.1	Perform multiple operations of fractions (review).	

M.4 DECIMALS		Date & Initial
4.5.1	Perform multiple operations of decimals (review).	

M.5 PERCENTS		Date & Initial
5.5.1	Perform multiple operations of percents (review).	

M.6 APPLY MATH IN A FUNCTIONAL CONTEXT		Date & Initial
6.5.1	Solve problems using averaging (mean) and median.	

M.7 RATIO AND PROPORTION		Date & Initial
7.5.1	Solve problems with probability.	
7.5.2	Compute using ratio.	
7.5.3	Compute using proportion.	

M.8 ESTIMATION		Date & Initial
8.5.1	Use estimation to solve real life problems.	

M.9 UNITS OF TIME AND MEASUREMENT		Date & Initial
9.5.1	Convert between the standard and metric systems of measures; inch/cm, foot/meter; pound/kilogram; quart/liter; Fahrenheit/Celsius.	
9.5.2	Compute time using United States time zones.	

M.10 TABLES, CHARTS, GRAPHS, AND MAPS		Date & Initial
10.5.1	Interpret information from multi-line graphs to solve problems.	

M.11 INTEGERS		Date & Initial
11.5.1	Identify and plot ordered pairs on a rectangular/coordinate plane.	

M.12 ALGEBRA		Date & Initial
12.5.1	Solve powers and perfect square roots.	
12.5.2	Solve complex algebraic equations (for ex.: 5(x+2) = 3(x +6), 3 r = 6).	

M.13 GEOMETRY		Date & Initial
13.5.1	Recognize and identify complex geometric words and shapes such as quadrilateral, polygon, hexagon, octagon, parallelogram, cube, trapezoid, cone, cylinder, and pyramid.	
13.5.2	Solve problems involving angles (right, complementary, supplementary, vertical, and corresponding) and triangles.	
13.5.3	Calculate circumference, perimeter, length, and width of selected geometric shapes (refer to current GED math formula page).	
13.5.4	Calculate area of geometric shapes (refer to current GED math formula page).	
13.5.5	Solve real-life problems using perimeter and area.	
13.5.6	Calculate volume of geometric shapes (refer to current GED math formula page).	
13.5.7	Solve real-life problems using volume.	
13.5.8	Solve problems using the Pythagorean Theorem with and without the aid of the calculator.	

M.14 TRIGONOMETRY		Date & Initial
14.5.1	Identify components of trigonometric functions (adjacent, opposite, and hypotenuse).	

Performance Descriptors

MATHEMATICS – LOW ADULT SECONDARY – LEVEL 5
Each IGO should be mastered with a minimum score of 80%.

Fractions

M.3.5.1 Review fractions as indicated in Level 3 (addition, subtraction, multiplication, and division) and solve a minimum of eight fraction reading problems.

Decimals

M.4.5.1 Review decimals including writing decimals from words, converting fractions to decimals and decimals to fractions, and estimation/rounding; solve a minimum of eight decimal word problems.

Percents

M.5.5.1 Review percents including changing percents to decimals, decimals to percents, fractions to percents, and percents to fractions. Find the part, whole, and percent of a given problem and solve a minimum of eight percent word problems.

Apply Math in a Functional Context

M.6.5.1 Solve a minimum of five problems each using averaging (mean) and median.

Ratio and Proportion

M.7.5.1 Solve a minimum of ten problems with probability.
M.7.5.2 Compute a minimum of ten problems using ratio.
M.7.5.3 Compute a minimum of ten problems using proportion.

Estimation

M.8.5.1 Use estimation to solve a minimum of ten real-life problems.

Units of Time and Measurement

M.9.5.1 Convert between the standard and metric systems of measures by solving a minimum of two problems each involving inch/cm; foot/meter; pound/kilogram; quart/liter; and Fahrenheit/Celsius.
M.9.5.2 Solve a minimum of ten problems involving time using United States time zones.

Tables, Charts, Graphs, and Maps

M.10.5.1 Interpret information from multi-line graphs to solve a minimum of five problems.

Integers

M.11.5.1 Identify and plot a minimum of ten ordered pairs on a rectangular/coordinate plane.

Algebra

M.12.5.1 Solve a minimum of ten problems using powers and perfect square roots.
M.12.5.2 Solve a minimum of ten complex algebraic equations (for ex.: $5(x+2) = 3(x+6)$, $\frac{3r}{4} = 6$).

Geometry

M.13.5.1 Recognize and identify a minimum of ten complex geometric words and shapes such as quadrilateral, polygon, hexagon, octagon, parallelogram, cube, trapezoid, cone, cylinder, and pyramid.
M.13.5.2 Solve a minimum of five problems each involving triangles and complementary, supplementary, vertical, and corresponding angles.
M.13.5.3 Solve a minimum of ten problems involving the calculation of circumference, perimeter, length, and width of circles, triangles, square, rectangles, and parallelograms.
M.13.5.4 Solve a minimum of ten problems involving the calculation of area of circles, triangles, squares, rectangles, and parallelograms.
M.13.5.5 Solve a minimum of five real-life problems using perimeter and five problems using area.
M.13.5.6 Solve a minimum of five problems each involving the volume of cubes and cylinders.
M.13.5.7 Solve a minimum of ten real-life problems using volume.
M.13.5.8 Solve a minimum of ten problems using the Pythagorean Theorem with and without the aid of the calculator using both hypotenuse and leg.

Trigonometry

M.14.5.1 Solve a minimum of ten problems that require the identification of trigonometric functions including adjacent, opposite, and hypotenuse.

WEST VIRGINIA ADULT BASIC EDUCATION SKILLS CHECKLIST

ABE MATHEMATICS

Federal Functioning Level 6 – High Adult Secondary (11.0-12.9)

Student:	Program:
Instructor:	Date Enrolled:

NOTE: Essential IGOs related to the GED Tests are underlined.

M.6 APPLY MATH IN A FUNCTIONAL CONTEXT		Date & Initial
6.6.1	Use payroll stub information to construct a personal/family budget.	
6.6.2	Reconcile a bank statement.	

M.7 RATIO AND PROPORTION		Date & Initial
7.6.1	Solve real-life word problems using proportion.	
7.6.2	Make predictions based on probability including possible outcomes.	

M.9 UNITS OF TIME AND MEASUREMENT		Date & Initial
9.6.1	Read and interpret information on scales, meters, and gauges.	

M.10 TABLES, CHARTS, GRAPHS AND MAPS		Date & Initial
10.6.1	Compare and analyze tables and graphs.	

M.11 INTEGERS		Date & Initial
11.6.1	Explain the relationship between length on a number line and absolute value.	

M.12 ALGEBRA		Date & Initial
12.6.1	Use algebra to solve real-life problems.	
12.6.2	Solve inequalities.	
12.6.3	Translate word phrases into algebraic expressions or word sentences into equations.	
12.6.4	Add, subtract, multiply, and divide monomials.	
12.6.5	Multiply and divide binomials.	
12.6.6	Solve problems involving the slope of a line on a graph.	
12.6.7	Solve problems involving the x and y intercepts on a graph.	
12.6.8	Solve problems involving distance between points on a coordinate system.	
12.6.9	Factor algebraic expressions.	
12.6.10	Express numbers in scientific notation.	

M.13 GEOMETRY		Date & Initial
13.6.1	Use geometric formulas to solve real-life problems (review).	

M.14 TRIGONOMETRY		Date & Initial
14.6.1	Solve problems involving trigonometric ratios (sin, cos, tan) with right angles.	

ADDITIONAL GED IGOS (not required for completion of FFL)		Date & Initial
GED.6.1	Operate a scientific calculator to solve basic and advanced mathematical functions.	
GED.6.2	Evaluate insurance costs and benefits.	
GED.6.3	Calculate retirement and investment benefits.	

Performance Descriptors

MATHEMATICS – HIGH ADULT SECONDARY – LEVEL 6
Each IGO should be mastered with a minimum score of 80%.

Apply Math in a Functional Context

M.6.6.1 Use payroll stub information to construct a personal/family budget.

M.6.6.2 Record at least ten transactions that include outstanding checks and deposits, debits/withdrawals and service charges. Balance should agree with check register (ending balance).

Ratio and Proportion

M.7.6.1 Solve a minimum of ten real-life word problems using proportion.

M.7.6.2 Make a minimum of ten predictions based on probability including possible outcomes.

Units of Time and Measurement

M.9.6.1 Read and interpret information on a minimum of five scales, five meters, and five gauges.

Tables, Charts, Graphs, and Maps

M.10.6.1 Compare and analyze information from a minimum of five pairs of tables and graphs representing identical or similar data.

Integers

M.11.6.1 By drawing a number line, show the relationship between length on a number line and absolute value for a minimum of five given absolute values.

Algebra

M.12.6.1 Use algebra to solve a minimum of ten real-life problems.

M.12.6.2 Solve a minimum of ten inequalities.

M.12.6.3 Solve a minimum of ten problems that require the translation of word phrases into algebraic expressions or word sentences into equations.

M.12.6.4 Solve a minimum of five problems each that require addition, subtraction, multiplication, and division of monomials.

M.12.6.5 Solve a minimum of five problems each that require the multiplication and division of binomials.

M.12.6.6 Solve a minimum of five problems involving the slope of a line on a graph.

M.12.6.7 Solve a minimum of five problems involving the x and y intercepts on a graph.

M.12.6.8 Solve a minimum of five problems involving distance between points on a coordinate system.

M.12.6.9 Factor a minimum of ten algebraic expressions.

M.12.6.10 Express a minimum of five numbers in scientific notation.

Geometry

M.13.6.1 Use geometric formulas to solve a minimum of ten real-life problems.

Trigonometry

M.14.6.1 Solve a minimum of ten problems involving trigonometric ratios (sin, cos, tan) with right angles.