

INDIVIDUALIZED INSTRUCTIONAL STUDENT PLAN

ABE Mathematics: TABE Level A

STUDENT: _____ I.D.: _____
 TEACHER: _____ COURSE: _____ DATE: _____

CURRENT TESTING INFORMATION:

Test Date: _____
 Current Test Level: D A
 Current Test Form: 11 12 GED Track
 NRS Level & Scale Score: 4 (537-595) 5 (596-656) 6 (657-800)

POST-TESTING INFORMATION:

TABE Level: A
 CCR Level: E (High School)
 Grade Level Correlation: 9-12

DOMAIN: Geometry (15%) CATEGORIES: Geometry: Congruence (G.CO); Geometry: Similarity, Right Triangles, & Trigonometry (G.SRT); Geometry: Geometric Measurement & Dimension (G.GMD); Geometry: Modeling with Geometry (G.MG) # Questions: 5		SCORED PROFICIENCY: <input type="checkbox"/> Non-Proficiency <input type="checkbox"/> Partial Proficiency <input type="checkbox"/> Proficiency			
CCRS Category	TABE Category	TABE Skill	Emphasis	Aligned CCRS	Mastery Date
Congruence	Understand transformations between figures	Explore the effects of simple series of transformations on parts of figures (e.g., lines, points, angles, parallel lines, etc.) on and off the coordinate plane	Low	G.CO.1	
Similarity, Right Triangles, & Trigonometry	Prove theorems involving similarity	Use the Pythagorean theorem to solve problems involving right triangles in two and three dimensions	Medium	G.SRT.5	
		Explore the effects of simple series of transformations on parts of figures (e.g., lines, points, angles, parallel lines, etc.) on and off the coordinate plane			
		Use Pythagorean theorem to solve problems involving rt. triangles in 2- & 3- dimensions, including those in rt. rectangular prisms, triangular prisms, & pyramids			
		Prove and apply theorems involving similarity			
	Use and evaluate congruence	Explore properties of similar figures and transformations that produce similar figures			
		Explore and create algebraic proofs of simple geometric theorems using coordinates			
	Create and use ratios to find missing side lengths and angle measures of similar figures				
Measurement & Dimension	Explain volume formulas & use to solve problems.	Solve problems involving surface areas and volumes of right rectangular prisms	High	G.GMD.3	
	Calculate and interpret volume	Use the formulas for the area and circumference of circles to solve problems involving volumes of cylinders			
		Use the formulas for the area and circumference of circles to solve problems involving volumes of cylinders & cones			
	Investigate and explain volume formulas through informal arguments of circles, cylinders, pyramids, and cones				
Modeling with Geometry	Find area, volume, surface area of figures	Solve problems involving areas of two-dimensional figures, including modeling problems involving concepts of density based on area	Medium	G.MG.2	
		Solve problems involving surface areas and volumes of three-dimensional figures, including modeling problems involving concepts of density based on volume			

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DOMAIN: Numbers & Quantity (13%)		SCORED PROFICIENCY:			
CATEGORY: Numbers & Quantity: The Real Number System (NQ.RN), Numbers & Quantity: Quantity (NQ.Q)				<input type="checkbox"/> Non-Proficiency <input type="checkbox"/> Partial Proficiency <input type="checkbox"/> Proficiency	
# Questions: 4					
CCRS Category	TABE Category	TABE Skill	Emphasis	Aligned CCRS	Mastery Date
The Real Number System	Evaluate radicals & rational exponents	Approximate the location of an irrational number on a number line	Medium	NQ.RN.2	
		Explain why the sums or products of rational and irrational numbers are either rational or irrational			
		Identify whether a number is rational or irrational			
		Simplify expressions involving integer exponents			
		Simplify expressions involving operations with rational numbers			
		Use properties of exponents to rewrite expressions involving radicals and rational exponents			
Quantities	Interpret data plots	Determine appropriate scales and origins in graphs and data displays	High	NQ.Q.1	
	Apply properties of operations: + - × ÷	Explore addition of rational and irrational numbers			
		Explore addition and multiplication of rational and irrational numbers			
		Convert between measurement units appropriately while solving problems			
	Create equations & inequalities	Define appropriate quantities and parameters when solving problems using descriptive modeling			
Understand data distribution	Choose appropriate levels of accuracy for measurement limitations in given situations	Low	NQ.Q.3		

DOMAIN: Statistics & Probability (16%)		SCORED PROFICIENCY:			
CATEGORY: Statistics & Probability: Interpreting Categorical & Quantitative Data (S.ID)				<input type="checkbox"/> Non-Proficiency <input type="checkbox"/> Partial Proficiency <input type="checkbox"/> Proficiency	
# Questions: 6					
CCRS Category	TABE Category	TABE Skill	Emphasis	Aligned CCRS	Mastery Date
Interpreting Categorical & Quantitative Data	Understand data distribution	Create multiple representations of data sets and describe key features (e.g., number of observations, patterns, overall shape, etc.)	Medium	S.ID.1	
		✚ Determine appropriate statistics to compare centers and spreads of data distributions (based on the shapes)	Medium	S.ID.3	
		✚ Interpret differences in the shapes, centers, and spreads of data sets in context			
		Create multiple representations of data sets and use them to describe comparative inferences about the centers, spreads, and overall shapes			
	Interpret two-way table based on bivariate data	Use information presented in two-way tables to describe associations between variables and to solve problems involving relative frequencies	Medium	S.ID.5	
	Interpret linear & quadratic equations, expressions, & functions	Use scatter plots and equations of linear models to draw basic conclusions about data	Medium	S.ID.7	
		Develop equations of linear models and use them to solve problems			
✚ Develop equations of linear models, interpret the slope and intercepts in context, and analyze the fit of the model to the data.					
Distinguish b/t correlation & causation	Distinguish between correlation and causation	Low	S.ID.9		

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DOMAIN: Algebra (28%) CATEGORY: Algebra: Seeing Structure in Expressions (A.SSE) Algebra: Arithmetic w/ Polynomials & Rational Expressions (A.APR); Algebra: Creating Equations (A.CED); Algebra: Reasoning w/ Equations & Inequalities (A.REI)		SCORED PROFICIENCY: <input type="checkbox"/> Non-Proficiency <input type="checkbox"/> Partial Proficiency <input type="checkbox"/> Proficiency			
# Questions: 10					
CCRS Category	TABE Category	TABE Skill	Emphasis	Aligned CCRS	Mastery Date
Seeing Structure in Expressions	Solve & evaluate linear & quadratic equation in two variables	✚ Identify parts of expressions (e.g., terms, coefficients, variables, etc.)	Low	A.SSE.1a	
		✚ Use the structure of an expression to identify ways to rewrite it. For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.	Low	A.SSE.2	
		Find the minimum or maximum and zeros of a quadratic equation and explain the meaning in context	Low	A.SSE.3a	
Arithmetic with Polynomials & Rational Expressions	Apply properties of operations: + - × ÷	Add and subtract polynomials of degree 3 or less	Medium	A.APR.1	
		Add, subtract, multiply, and divide polynomials of degree 3 or less			
		Add, subtract, multiply, & divide polynomials of any degree			
Creating Equations	Create equations & inequalities	✚ Create equations & inequalities in 1 variable & use to solve problems. Incl. equations arising from linear & quadratic functions, & simple rational & exponential fcns.	Low	A.CED.1	
		✚ Identify an equation that shows a relationship between two variables given in a table or graph	Low	A.CED.2	
		Create equations that show a relationship between two variables given in a table or graph			
		Create quadratic equations that represent given real-world situations			
		Create systems of equations that represent given real-world situations	Medium	A.CED.3	
		Create systems of inequalities that represent given real-world situations			
		Identify systems of inequalities that represent given real-world situations			
Reasoning with Equations & Inequalities	Solve & evaluate linear & quadratic equation in one variable	✚ Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.	Low	A.REI.1	
		✚ Use properties of operations, such as distributive property and combining like terms, to find solutions of linear equations	Low	A.REI.3	
		✚ Solve quadratic equations in one variable.	Low	A.REI.4	
		Factor/solve quadratic equations w/ lead coefficients > 1	Low	A.REI.4b	
		Solve quadratic equations by factoring			
	Solve quadratic equations using various methods (e.g., taking square roots, factoring, completing the square, quadratic formula, etc.)				
	Solve & evaluate systems of equations	✚ Determine whether a point (x, y) is a solution to a given system of equations	Medium	A.REI.6	
		✚ Solve a system of equations by graphing the equations and finding the point of intersection			
Graph systems of inequalities		High	A.REI.10		
Determine whether a point (x, y) is in the Solution set of a given system of inequalities					

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DOMAIN:	Functions (28%)	SCORED PROFICIENCY:	<input type="checkbox"/> Non-Proficiency
CATEGORY:	Functions: Interpreting Functions (F.IF); Functions: Building Functions (F.BF); Functions: Linear, Quadratic, & Exponential		<input type="checkbox"/> Partial Proficiency
# Questions:	Models (F.LE)		<input type="checkbox"/> Proficiency
	10		

CCRS Category	TABE Category	TABE Skill	Emphasis	Aligned CCRS	Mastery Date
Interpreting Functions	Evaluate functions & functional relationships	Find avg. rate of change of fcn. over given interval	Medium	F.IF.6	
		Write functions in different but equivalent forms and explain what each form "reveals" (e.g., factoring a quadratic function to reveal the zeros)	Low	F.IF.9	
		Compare properties of two functions (linear, quadratic, piecewise linear, absolute value, exponential) represented in the same way			
		Compare properties of two functions (linear, quadratic, piecewise linear, absolute value, exponential) represented in different ways			
		✚ Understand that a function from one set (called domain) to another set (called range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes output of f corresponding to input x . Graph of f is graph of equation $y = f(x)$.		F.IF.1	
	Interpret linear & quadratic equations, expressions, & functions	Evaluate a linear function at a given value	Medium	F.IF.2	
		Evaluate linear, quadratic, and exponential functions at given values with and without context			
		Use function notation and interpret statements that use function notation in context			
		Find the rate of change of a linear function	Medium	F.IF.6	
		Find the average rate of change of a function over a given interval			
Graph equations of linear functions given in various forms		High	F.IF.7a		
✚ Use properties of exponents to interpret expressions for exponential functions.		Low	F.IF.8b		
Interpret graphs	Identify the intercepts of graphs of linear functions	Medium	F.IF.4		
	Identify key characteristics of graphs of functions (e.g., intercepts, minimum, maximum, etc.)				
Building Functions	Create new functions	Create new functions from existing functions (e.g., $f(x) + k$, $f(x + k)$, etc.)?	Low	F.BF.1	
	Evaluate functions & functional relationships	✚ Write a function that describes a relationship between two quantities.	Low	F.BF.1	
		Explore arithmetic and geometric sequences and relate them to linear and exponential functions	Low	F.BF.1a	
		Write the equation of a linear function represented by a table or a graph			
Linear, Quadratic, & Exponential Models	Determine whether graphs of functions are linear, quadratic, or exponential	Determine whether graphs of functions are linear, quadratic, or exponential	Low	F.LE.1a	
		Determine whether a given scenario can be represented by a function w/ constant rate of change			
	Interpret linear & quadratic equations, expressions, & functions	Describe the meaning of terms of equations of functions in context	Low	F.LE.5	
Use the equation or graph of a linear function to represent and solve real-world problems					

✚ Standard is listed on TABE Level E Crosswalks or on TABE Level M Blue Prints; however, it does NOT appear on the Student Individual Profile Report.

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Correlated CCR Anchor/Substandards & Descriptions

Geometry

- G.CO.1** Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.
- G.GMD.3** Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.
- G.MG.2** Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).
- G.SRT.5** Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.

Numbers & Quantity

- NQ.Q.1** Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.
- NQ.Q.3** Choose a level of accuracy appropriate to limitations on measurement when reporting quantities
- NQ.RN.2** Rewrite expressions involving radicals and rational exponents using the properties of exponents.

Statistics & Probability

- S.ID.1** Represent data with plots on the real number line (dot plots, histograms, and box plots).
- S.ID.3** Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).
- S.ID.5** Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.
- S.ID.7** Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.
- S.ID.9** Distinguish between correlation and causation.

Algebra

NOTE: Standard appearing in "red" is NOT listed in the CCRS; however, it is identified as tested on the TABE 11/12 Level A Mathematics test.

- A.APR.1** Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials. [Note from panel: Emphasis should be on operations with polynomials.]
- A.CED.1** **+** Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.
- A.CED.2** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.
- A.CED.3** Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.
- A.REI.1** **+** Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.
- A.REI.3** **+** Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.
- A.REI.4** **+** Solve quadratic equations in one variable.
- A.REI.6** **+** Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.
- A.REI.4b** **Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b .**
- A.REI.10** Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).
- A.SSE.1a** **+** Interpret parts of an expression, such as terms, factors, and coefficients.
- A.SSE.2** **+** Use the structure of an expression to identify ways to rewrite it. For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.
- A.SSE.3** Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.
- A.SSE.3a** Factor a quadratic expression to reveal the zeros of the function it defines

Functions

NOTE: Standard appearing in "red" is NOT listed in the CCRS; however, it is identified as tested on the TABE 11/12 Level A Mathematics test.

- F.BF.1** **+** Write a function that describes a relationship between two quantities.
- F.BF.1a** **Determine an explicit expression, a recursive process, or steps for calculation from a context.**
- F.IF.2** Use function notation, evaluate functions for inputs in their domains, & interpret statements that use function notation in terms of a context.

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- F.IF.4** For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. For example, for a quadratic function modeling a projectile in motion, interpret the intercepts and the vertex of the function in the context of the problem. [Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.]
- F.IF.6** Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph. [NOTE: See conceptual modeling categories.]
- F.IF.7** Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.
- F.IF.7a** **Limits the graphic requirement to only linear and quadratic.**
- F.IF.9** Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.
- F.LE.1** Distinguish between situations that can be modeled with linear functions and with exponential functions.
- F.LE.1a** **Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.**
- F.LE.5** Interpret the parameters in a linear or exponential function in terms of a context.

This IISP contains information obtained from the source documents listed below.

TABE Test for Adult Assessment: Blue Prints

<https://tabetest.com/resources-2/testing-information/blue-prints/>

TABE Test for Adult Assessment: Crosswalks

https://tabetest.com/PDFs/TABE_11_12_Skills_Crosswalks_Mathematics.pdf

TABE Test for Adult Assessment: TABE 11/12 Individual Profile Report

<https://tabe.drctdirect.com/default.aspx?leapp=Reports&leview=DynamicStudentReports>

Pimentel, Susan. "College and Career Readiness Standards for Adult Education." *Office of Career, Technical, and Adult Education*, U.S. Department of Education, 2013, lincs.ed.gov/publications/pdf/CCRStandardsAdultEd.pdf.