Understanding and Applying the TABE 11&12 Overlay

An Add-On to the ABE Math Curriculum Matrix

Activity Book

Institute for the Professional Development of Adult Educators

Understanding and Applying the TABE 11&12 Overlay

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Resources Developed and Designed By
Ronald Cruz

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Agenda

Reflection

1. What are the instructional challenges you face with the implementation of TABE 11& 12 Assessment in the following areas?

    a. Testing Requirements

    _____
    _____
    _____
    _____

    b. Testing Format and Content

    _____
    _____
    _____
    _____

    c. Curriculum

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    _____
    _____
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    d. Instructional Tools

    _____
    _____
    _____
    _____

    e. Interpreting Scores

    _____
    _____
    _____
    _____

    f. Instructional Resources

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    _____
    _____
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g. Lesson Planning

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h. Pacing

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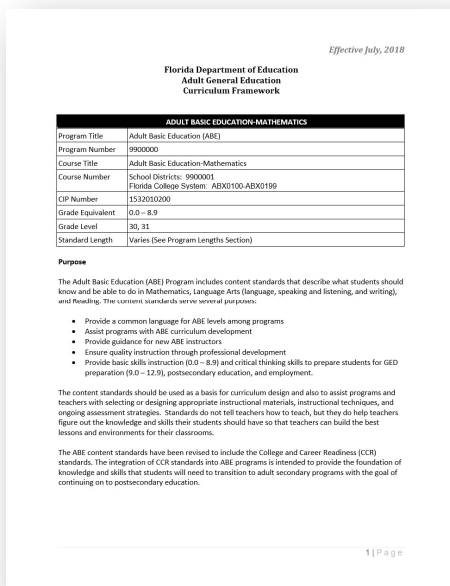_____
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i. Professional Growth

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What's Out There?

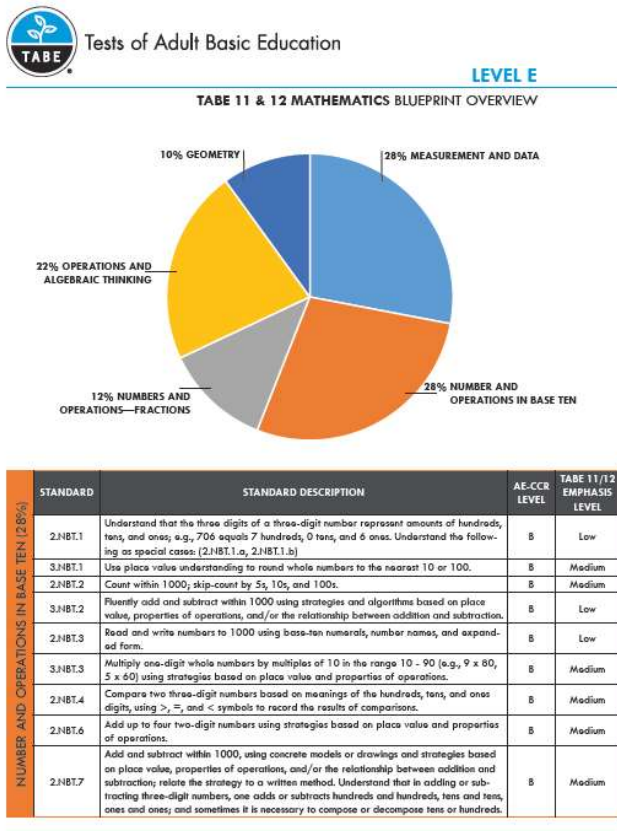## The College and Career Readiness Standards for Adult Education
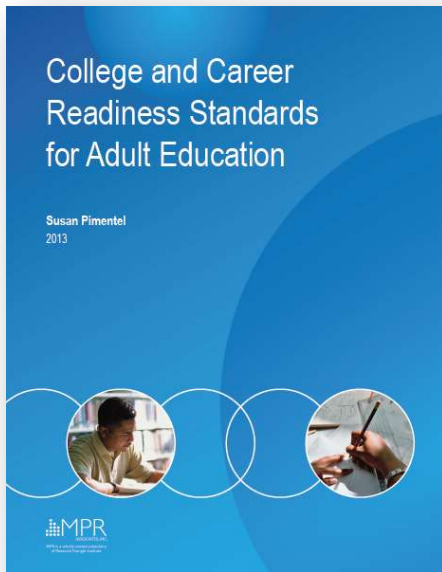
The Curriculum Framework for ABE Mathematics

The ABE Mathematics Curriculum Matrix

Domain	NRS Level 1	NRS Level 2	NRS Level 3	NRS Level 4
1. Number and Operations: Base Ten	Place Value of 2 Digit Numbers; Add and Subtract 2 Digit Numbers; Compare 2 Digit Numbers	Place Value of 3 Digit Numbers; Add and Subtract 3 Digit Numbers; Model Addition and Subtraction of 3 Digit Numbers; Compare 3 Digit Numbers	Round Whole Numbers to the Nearest Ten or Hundreds; Multiply 1 Digit Numbers by 2 Digit Multiples of 10; Use Properties of Operations to Perform Multi-Digit Arithmetic; Mentally Add and Subtract 10 or 100 to 3 Digit Numbers; Generalize Understanding of Place Value; Basic Operations with Multi Digit Numbers in Standard Algorithm; Read and Write Multi-Digit Number in Names and Expanded Form; Round Multi-Digit Numbers to Any Place Value; Perform Basic Operations on Decimal Numbers Using Multiple Strategies; Multiply 4 Digit Numbers by 1 to 2 Digit Numbers; Divide 4 Digit Numbers by 1 Digit Numbers; Round Decimals to Any Place	Use Place Value to Understand Decimals; Read, Write, and Compare Decimals to Thousandths; Divide 4 Digit Numbers by 2 Digit Numbers Using Multiple Strategies
2. Operations and Algebraic Thinking	Solve Addition and Subtraction Problems within 20; Commutative and Associative Property of Addition; The Equal Sign; Solving Addition and Subtraction Equations	Solve Addition and Subtraction Problems within 100; Commutative and Associative Property of Multiplication; Solve Multiplication and Division Problems within 100; Solve Multiplication and Division Equations; Multiplication Facts within 100; Distributive Property of Multiplication; Solve 2 Step Problems or Equations; Model Multiplication and Division within 100	Solve Multi Step Problems Using Basic Operations; Check Answers Using Mental Computation and Estimation; Write and Interpret Numerical Expressions; Interpret Multiplication as Comparison Statements; Solve Problems Involving Multiplicative Comparisons; Interpret Expression without Evaluating Them; Interpret the Remainder in Problems; Solve 2 Step Real Factor Pairs of Any 2 Digit Whole Number; Generate and Analyze Numeric and Geometric Patterns	Multiples of 2 Digit Numbers Up to 100; Prime and Composite Numbers within 100; Identify Implicit Features of a Pattern from a Rule
3. Measurement and Data	Organize, Represent, and Interpret 3 Categories of Data; Indirectly Measure Lengths through Iteration; Represent Whole Number Lengths on a Number Line	Analyze and Generate Picture Graphs and Bar Graphs; Analyze and Generate Line Plots; Measuring and Estimating Areas of Plane Figures; Measure and Estimate Lengths in Standard Units; Solve Problems Involving Perimeter of Polygons	Solve Problems Involving Time, Volume and Mass; Use Areas to Model Addition and Multiplication; Solve Problems in Length, Time, Volume, Mass and Money Including Fractions; Apply Area and Perimeter Formulas for Rectangles; Measure and Sketch Angles in Whole Number Degrees; Solve Problems Involving Information Presented in Line Plots; Convert Measurements within a System; Solve Addition and Subtraction Problems for Unknown Angles	Recognize Angles; Organize Unit Fraction Data (1/2, 1/4, 1/8) in a Line Plot; Understand Concepts of Angle Measurement
4. Geometry	Analyze, Compare, and Compose 3 Dimensional Shapes; 2- and 3 Dimensional Composite Shapes	Analyze, Draw and Compare Shapes Having Specified Attributes; Identify Common Polygons and 3 Dimensional Figures; Categorize Shapes with Common Attributes; Partition Shapes into Parts with Equal Areas	Draw and Identify Points, Lines, Line segments, and Rays; Draw and Identify Angles, Perpendicular and Parallel Lines; Use Nets to Find the Surface Area of Figures; Solve Problems by Graphing Points on the Coordinate Plane; Classify 2 Dimensional Figures into Categories Based on Properties; Find Areas of Polygons by Composing or Decomposing; Solve Problems Involving Area, Surface Area, and Volume; Find the Length of a Side with the Same First or Second Coordinate	Draw Polygons in a Coordinate Plane; Solve Problems Involving Angle Meas., Areas, SA and Volume; Solve Problems Involving Scale Drawings of Geometric Figures; Recognize Congruence and Similarity from Transformations; Produce Congruence and Similarity Using Models; Angle Sum and Exterior Angles of Triangles and Transversals; Explain and Apply the Pythagorean Theorem
5. Number and Operations: Fractions		Represent Fractions with Denominators 2, 3, 4, 6, or 8 on a Number Line; Recognize Equivalent Fractions on a Number Line; Use Visual Models to Represent Equivalent Fractions; Compare Fractions with the Same Numerator or Denominator	Generate Equivalent Fractions; Use Models to Illustrate Equivalent Fractions; Multiply and Divide Fractions; Compare Fractions Using Common Numerators or Denominators; Compare Fractions Using Benchmark Fractions such as 1/2; Solve Problems Involving Multiplication and Division of Fractions; Decompose Fractions as Sum of Fractions with the Same Denominator; Add and Subtract Mixed Numbers Using Equivalent Fractions; Convert Fractions with Denominators 10 or 100 to Decimals	Decompose Fractions as Multiples of Unit Fractions; Multiply Fractions by a Whole Number; Solve Problems Involving Addition and Subtraction of Fractions
6. Expressions and Equations			Write and Evaluate Algebraic Expressions with Exponents; Perform the Order of Operations on Algebraic Expressions; Identify and Generate Equivalent Algebraic Expressions; Reason and Solve One Variable Equations and Inequalities; Use Substitution to Determine if an Equation or Inequality is True; Use Variables to Represent Two Related Quantities in a Problem; Express One Quantity as the Dependent Variable of the Another Quantity; Use Graphs, Tables and Equations to Show Variable Relationships; Solve Simultaneous Linear Equations in One Variable	Add, Subtract, Factor, and Expand Linear Expressions; Rewrite Expressions to Show Relationships Between Quantities; Construct Equations and Inequalities to Solve Problems; Solve Equations Using Algebraic Equations with Rational Coefficients; Apply the Properties of Exponents to Generate Equivalent Expressions; Evaluate Square and Cube Roots of Perfect Squares and Cubes; Solve Problems Involving Quantities in Scientific Notation; Graph Proportional Relationships; Unit Rate as the Slope
7. The Number System			Fluently Divide Multi Digit Numbers; Find the Least Common Multiple of Two Numbers ≤ 12; Fluently Add, Subtract, Multiply and Divide Multi Digit Decimals; Find the Greatest Common Factor of Two Numbers ≤ 100; Solve Problems Involving Division of Fractions by Fractions; Apply Distributive Property to Generate Equivalent Expressions; Use Integers to Represent Quantities in Real World Contexts; Plot/Find Rational Numbers on a Number Line; Convert a Rational Number to Decimal; Plot/Find Ordered Pairs of Rational Numbers on a Coordinate Plane; Understand and Evaluate Absolute Value of Rational Numbers; Solve Problems Involving Basic Operations on Rational Numbers; Explain Statements of Order and Inequality Using a Number Line; Solve Problems by Graphing; Find Rational Approximations of Irrational Numbers; Add and Subtract Rational Numbers Using a Number Line; Multiply and Divide Rational Numbers; Estimate the Location of Irrational Numbers on a Number Line
8. Ratios and Proportional Relationships			Describe a Relationship Between Two Quantities Using a Ratio; Explain the Unit Rate a/b Associated with the Ratio a:b, with b ≠ 0; Use Various Techniques to Solve Problems Involving Ratios; Represent Proportional Relationships by Equations and Graphs; Solve Problems Involving Proportional Relationships
9. Statistics and Probability			Discuss Statistical Questions Involving Variability in Data; Discuss Statistical Questions Involving Center, Spread and Overall Shape; Discuss the Measure of Center and Variation for a Numerical Data Set; Display Numerical Data in Plots on a Number Line: Dot Plots, Histograms, Box Plots; Relate Measures of Center and Variability to Data Distribution and Context; Summarize and Describe Numerical Data Sets; Draw Informal Comparative Inferences About Two Populations; Use Interquartile Range and MAD to Draw Comparative Information; Find or Approximate the Probability of Simple & Compound Events with Various Techniques; Use Random Sampling to Draw Inferences About a Population; Construct and Interpret Scatter Plots from Two Way Tables and Vice Versa
10. Functions			Define, Evaluate and Compare Functions; Interpret the Equation y = mx + b as Defining a Linear Function; Construct a Function to Model Linear Relationships; Describe Qualitatively or Sketch the Functional Relationship between Two Quantities

The TABE Assessment Blueprints

Tests of Adult Basic Education

LEVEL E

TABE 11 & 12 MATHEMATICS BLUEPRINT OVERVIEW

- 10% GEOMETRY
- 28% MEASUREMENT AND DATA
- 22% OPERATIONS AND ALGEBRAIC THINKING
- 12% NUMBERS AND OPERATIONS—FRACTIONS
- 28% NUMBER AND OPERATIONS IN BASE TEN

	STANDARD	STANDARD DESCRIPTION	AE-CCR LEVEL	TABE 11/12 EMPHASIS LEVEL
NUMBER AND OPERATIONS IN BASE TEN (28%)	2.NBT.1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: (2.NBT.1.a, 2.NBT.1.b)	B	Low
	3.NBT.1	Use place value understanding to round whole numbers to the nearest 10 or 100.	B	Medium
	2.NBT.2	Count within 1000; skip-count by 5s, 10s, and 100s.	B	Medium
	3.NBT.2	Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	B	Low
	2.NBT.3	Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	B	Low
	3.NBT.3	Multiply one-digit whole numbers by multiples of 10 in the range 10 - 90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations.	B	Medium
	2.NBT.4	Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.	B	Medium
	2.NBT.6	Add up to four two-digit numbers using strategies based on place value and properties of operations.	B	Medium
	2.NBT.7	Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.	B	Medium

Publisher Resources, Correlations and Alignment

The Online Tools Training

Mathematics - Level A

Question 4

Training Student

00:46:31

A county clerk has a given amount of money to budget for cultural events.

Cultural Events Budget

$y = -0.45x + 18$

Budget Remaining (thousands of dollars)

Time (months)

Based on the scatterplot, what does the point (0, 18) represent?

- (a) the total amount of the budget given to the county
- (b) the total amount of the budget spent after 18 months
- (c) the average amount spent out of the budget each month
- (d) the predicted amount of time after which the entire budget will be spent

Review/End Test | Pause | Flag | Options | Back | Next

Reflection Questions:

Which ones have you started using for your classroom instruction?

_____
_____
_____

Which ones did you find most useful?

_____
_____
_____

What difficulties have you experienced when using these resources?

_____
_____
_____

The TABE Overlay

Adult Basic Education (Mathematics) Curriculum Matrix

Domain	NRS Level 1	NRS Level 2	NRS Level 3	NRS Level 4
1. Number and Operations: Base Ten	Place Value of 2-Digit Numbers; Add and Subtract 2-Digit Numbers; Compare 2-Digit Numbers; Model Addition and Subtraction of 2-Digit Numbers	Place Value of 3-Digit Numbers; Compare 3-Digit Numbers; Add and Subtract 3-Digit Numbers; Model Addition and Subtraction of 3-Digit Numbers; Round Whole Numbers to the Nearest Tens or Hundreds; Multiply 1-Digit Numbers by 2-Digit Numbers; Digit Multiples of 10; Use Properties of Operations to Perform Multi-Digit Arithmetic; Normally Add and Subtract 10 to 100 to 3-Digit Numbers	Generalize Understanding of Place Value; Compare Any Multi-Digit Number; Basic Operations with Multi-Digit Numbers in Standard Algorithm; Read and Write Multi-Digit Numbers in Numeric and Expanded Form; Round Multi-Digit Numbers to Any Place Value; Perform Basic Operations on Decimal Numbers Using Multiple Strategies; Multiply Multi-Digit Numbers by 1- to 2-Digit Numbers; Divide 4-Digit Numbers by 2-Digit Numbers; Round Decimals to Any Place; Divide 4-Digit Numbers by 2-Digit Numbers Using Multiple Strategies	Use Place Value to Understand Decimals; Read, Write, and Compare Decimals to Thousandths
2. Operations and Algebraic Thinking	Solve Addition and Subtraction Problems within 20; The Equal Sign; Communicative and Associative Property of Addition; Solving Addition and Subtraction Equations	Solve Addition and Subtraction Problems within 100; Communicative and Associative Property of Multiplication; Solve Multiplication and Division Problems within 100; Solve Multiplication and Division Equations	Multiplication Facts within 100; Distributive Property of Multiplication; Solve 2-Step Problems in Equations; Model Multiplication and Division within 100	Solve Multi-Step Problems Using Basic Operations; Check Answers Using Mental Computation and Estimation; Write and Interpret Numerical Expressions	Interpret the Remainder in Problems; Solve Problems Involving Multiplication Expressions; Generate and Analyze Numeric and Geometric Patterns	Multiply the 1-Digit Numbers Up to 100; Prime and Composite Numbers within 100; Identify (Analyze) Features of a Pattern from a Rule
3. Measurement and Data	Indirectly Measure Lengths through Iteration; Organize, Represent, and Interpret 3 Categories of Data	Analyze and Generate Picture Graphs and Bar Graphs; Represent Whole Number Lengths on a Number Line	Analyze and Generate Line Plots; Measuring and Estimating Area of Plane Figures	Measure and Estimate Lengths in Standard Units; Solve Problems Involving Perimeter of Polygons	Solve Problems in Length, Time, Volume, Mass and Money Including Decimals; Apply Area and Perimeter Formulas for Rectangles	Solve Problems Involving Time, Volume, Mass and Mass; Convert Measurements within a System; Organize Unit Fraction Data 1/2, 1/4, 1/8 in a Line Plot	Recognize Angles; Understand Concepts of Angle Measurement
4. Geometry	Analyze, Compare, and Complete 3-Dimensional Shapes; Composite Shapes	2- and 3-Dimensional Shapes; Analyze, Draw and Compare Shapes Having Specified Attributes	Identify Common Polygons and 3-Dimensional Figures	Draw and Identify Lines, Line segments, and Rays; Draw and Identify Angles, Perpendicular and Parallel Lines; Represent 3-Dimensional Figures Using Nets	Partition Shapes into Parts with Equal Areas; Measure and Sketch Angles in Whole-Number Degrees	Draw and Identify Points, Lines, Line segments, and Rays; Classify 2-Dimensional Figures Based on Properties; Use Nets to Find the Surface Area of Figures	Draw Polygons in Coordinate Plane; Find the Length of a Side with the Same First or Second Coordinate	Produce Congruence and Similarity Using Models; Solve Problems Involving Angle Mass, Area, SA and Volume	Angle Sum and Exterior Angles of Triangles and Transversals; Explore and Apply the Pythagorean Theorem
5. Number and Operations: Fractions	Represent Fractions with Denominators 2, 3, 4, 6, or 8 on a Number Line	Represent Equivalent Fractions on a Number Line; Use Visual Models to Represent Equivalent Fractions	Compare Fractions with the Same Numerator or Denominator; Generate Equivalent Fractions	Compare Fractions Using Common Numerators or Denominators; Use Models to Illustrate Equivalent Fractions; Multiply and Divide Fractions	Decompose Fractions as Sum of Fractions with the Same Denominator; Add and Subtract Mixed Numbers Using Equivalent Fractions; Convert Fractions with Multiplication and Division of Fractions	Decompose Fractions as Multiples of Unit Fractions; Multiply Fractions by a Whole Number; Solve Problems Involving Addition and Subtraction of Fractions		
6. Expressions and Equations			Write and Evaluate Algebraic Expressions with Exponents; Perform the Order of Operations on Algebraic Expressions	Identify and Generate Equivalent Algebraic Expressions; Reason and Solve One-Variable Equations and Inequalities	Solve Problems Involving Multiplication and Division of Fractions; Use Substitution to Determine if an Equation or Inequality is True; Use Variables to Represent Two Related Quantities in a Problem	Solve Problems Involving Addition and Subtraction of Fractions; Express One Quantity as the Dependent Variable of the Other; Use Graphs, Tables and Equations to Show Variable Relationships	Add, Subtract, Factor, and Expand Linear Expressions; Rewrite Expressions to Show Relationships Between Quantities; Solve Simultaneous Linear Equations in One Variable	Construct Equations and Inequalities to Solve Problems; Solve Problems Using Algebraic Equations with Rational Co-Efficients	Apply the Properties of Exponents to Generate Equivalent Expressions; Evaluate Square and Cube Roots of Perfect Squares and Cubes; Solve Problems Involving Scientific Notation
7. The Number System				Quantify/Divide Multi-Digit Numbers; Find the Least Common Multiple of Two Numbers 1-12	Fluently Add, Subtract, Multiply and Divide Multi-Digit Decimals; Use Models to Illustrate, Integrate and Compute Quotients of Fractions; Solve Problems Involving Division of Fractions by Fractions	Multiply the Greatest Common Factor of Two Numbers < 100	Apply Distributive Property to Generate Equivalent Expressions; Plot/Find National Numbers on a Number Line; Convert a Rational Number to Decimal	Plot/Find Ordered Pairs of Rational Numbers on a Coordinate Plane; Understand and Evaluate Absolute Values of Rational Numbers; Solve Problems Involving Basic Operations on Rational Numbers	Add and Subtract Rational Numbers Using a Number Line; Multiply and Divide Rational Numbers; Estimate the Location of Irrational Numbers on a Number Line
8. Ratios and Proportional Relationships					Describe a Relationship Between Two Quantities Using a Ratio			Explain the Unit Rate a/b Associated with the Ratio a:b, with b≠0	Use Various Techniques to Solve Problems Involving Ratios	Represent Proportional Relationships By Equations and Graphs; Solve Problems Involving Proportional Relationships
9. Statistics and Probability						Discuss Statistical Questions Involving Variability in Data	Discuss Statistical Questions Involving Center, Spread and Overall Shape	Discuss the Measures (Center and Variation) for a Numerical Data Set	Display Numerical Data in Plots on a Number Line: Dot Plots, Histograms, Box Plots; Use Measures of Center and Variability to Data Distribution and Context	Find an Approximate to the Probability of Simple & Compound Events with Various Estimates; Use Random Sampling to Draw Inferences About a Population; Draw Informal Comparative Inferences About Two Populations; Use Interquartile Range and Describe MAD to Draw Comparative Inferences; Summarize and Describe Numerical Data Sets
10. Functions									Define, Evaluate and Compare Functions	Use the Equation of a Linear Model to Solve Problems; Use Functions Sampling to Draw Inferences About a Population; Construct a Function to Model a Linear Relationship Between Two Quantities; Interpret the Equation y = mx + b as Defining a Linear Function; Construct and Interpret the Relationship Between Two Quantities

Matching Activity

Instructions:

Match the standard code to each cell of the matrix (Table 1). The first one is already done for you.

TABLE 1

Domain	NRS Level 1		NRS Level 2			
	Place Value of 2-Digit Numbers **2.NBT.1**	Add and Subtract 2-Digit Numbers	Place Value of 3-Digit Numbers	Add and Subtract 3-Digit Numbers	Round Whole Numbers to the Nearest Tens or Hundreds	Use Properties of Operations to Perform Multi-Digit Arithmetic
1. Number and Operations: Base Ten	Compare 2-Digit Numbers	Model Addition and Subtraction of 2-Digit Numbers	Compare 3-Digit Numbers	Model Addition and Subtraction of 3-Digit Numbers	Multiply 1-Digit Numbers By 2-Digit Multiples of 10	Mentally Add and Subtract 10 or 100 to 3-Digit Numbers

	STANDARD	STANDARD DESCRIPTION	AE-CCR LEVEL	TABE 11/12 EMPHASIS LEVEL
NUMBER AND OPERATIONS IN BASE TEN (28%)	2.NBT.1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: (2.NBT.1.a, 2.NBT.1.b)	B	Low
	3.NBT.1	Use place value understanding to round whole numbers to the nearest 10 or 100.	B	Medium
	2.NBT.2	Count within 1000; skip-count by 5s, 10s, and 100s.	B	Medium
	3.NBT.2	Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	B	Low
	2.NBT.3	Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	B	Low
	3.NBT.3	Multiply one-digit whole numbers by multiples of 10 in the range 10 - 90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations.	B	Medium
	2.NBT.4	Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.	B	Medium
	2.NBT.6	Add up to four two-digit numbers using strategies based on place value and properties of operations.	B	Medium
	2.NBT.7	Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.	B	Medium

Go back to table 1 and use different colors of highlighter or crayons to differentiate the standards that are Low and Medium in Emphasis Level.

Reflection Question:

What was the "Aha Moment" for you when completing this matching activity?

_____
_____
_____
_____
_____

Overlays for Each Level of TABE

TABE Level E & L

Adult Basic Education (Mathematics) Curriculum Matrix

Domain	NRS Level 1	NRS Level 2	NRS Level 3	NRS Level 4
1. Number and Operations: Base Ten	Place Value of 2-Digit Numbers; Add and Subtract 2-Digit Numbers; Compare 2-Digit Numbers; Model Addition and Subtraction of 2-Digit Numbers	Place Value of 3-Digit Numbers; Add and Subtract 3-Digit Numbers; Round Whole Numbers to the Nearest Tens or Hundreds; Use Properties of Operations to Perform Multi-Digit Arithmetic; Compare 3-Digit Numbers; Model Addition and Subtraction of 3-Digit Numbers; Multiply 1-Digit Numbers By 2-Digit Multiples of 10; Mentally Add and Subtract 10 or 100 to 3-Digit Numbers	Generalize Understanding of Place Value; Read and Write Multi-Digit Numbers in Names and Expanded Form; Multiply 4-Digit Numbers by 1- to 2-Digit Numbers; Use Place Value to Understand Decimals; Compare Any Multi-Digit Number; Basic Operations with Multi-Digit Numbers in Standard Algorithm; Round Multi-Digit Numbers to Any Place Value; Perform Basic Operations on Decimal Numbers Using Multiple Strategies; Divide 4-Digit Numbers by 1-Digit Numbers; Round Decimals to Any Place; Read, Write, and Compare Decimals to Thousandths; Divide 4-Digit Numbers by 2-Digit Numbers Using Multiple Strategies	
2. Operations and Algebraic Thinking	Solve Addition and Subtraction Problems within 20; The Equal Sign; Commutative and Associative Property of Addition; Solving Addition and Subtraction Equations	Solve Addition and Subtraction Problems within 100; Solve Multiplication and Division Problems within 100; Multiplication Facts within 100; Solve 2-Step Problems or Equations; Commutative and Associative Property of Multiplication; Solve Multiplication and Division Equations; Distributive Property of Multiplication; Model Multiplication and Division within 100	Solve Multi-Step Problems Using Basic Operations; Interpret Multiplication as Comparison Statements; Multiples of 1-Digit Numbers Up to 100; Check Answers Using Mental Computation and Estimation; Solve Problems Involving Multiplicative Comparisons; Find All Factor Pairs of Any 2-Digit Whole Number; Prime and Composite Numbers within 100; Write and Interpret Numerical Expressions; Interpret Expressions without Evaluating Them; Generate and Analyze Numeric and Geometric Patterns; Identify Inexplicit Features of a Pattern from a Rule	
3. Measurement and Data	Organize, Represent, and Interpret 3 Categories of Data; Indirectly Measure Lengths through Iteration	Analyze and Generate Picture Graphs and Bar Graphs; Analyze and Generate Line Plots; Measure and Estimate Lengths in Standard Units; Solve Problems Involving Time, Volume, and Mass; Represent Whole Number Lengths on a Number Line; Measuring and Estimating Areas of Plane Figures; Solve Problems Involving Perimeter of Polygons; Use Areas to Model Addition and Multiplication	Solve Problems in Length, Time, Volume, Mass and Money including Fractions; Solve Problems in Length, Time, Volume, Mass and Money including Decimals; Solve Problems Involving Information Presented in Line Plots; Recognize Angles; Apply Area and Perimeter Formulas for Rectangles; Convert Measurements within a System; Organize Unit Fraction Data (1/2, 1/4, 1/8) in a Line Plot; Understand Concepts of Angle Measurement; Measure and Sketch Angles in Whole-Number Degrees; Solve Addition and Subtraction Problems for Unknown Angles	
4. Geometry	Analyze, Compare, and Compose 3-Dimensional Shapes; 2- and 3-Dimensional Composite Shapes	Analyze, Draw and Compare Shapes Having Specified Attributes; Identify Common Polygons and 3-Dimensional Figures; Categorize Shapes with Common Attributes; Partition Shapes into Parts with Equal Areas	Draw and Identify Points, Lines, Line segments, and Rays; Solve Problems by Graphing Points on the Coordinate Plane; Solve Problems Involving Area, Surface Area, and Volume; Solve Polygons in a Coordinate Plane; Solve Problems Involving Scale Drawings of Geometric Figures; Produce Congruence and Similarity Using Models; Angle Sum and Exterior Angles of Triangles and Transversals; Draw and Identify Angles, Perpendicular and Parallel Lines; Classify 2-Dimensional Figures into Categories Based on Properties; Find Areas of Polygons by Composing or Decomposing; Find the Length of a Side with the Same First or Second Coordinate; Solve Problems Involving Angle Meas., Areas, SA and Volume; Recognize Congruence and Similarity from Transformations; Explain and Apply the Pythagorean Theorem; Represent 3-Dimensional Figures Using Nets; Use Nets to Find the Surface Area of Figures	
5. Number and Operations: Fractions		Represent Fractions with Denominators 2, 3, 4, 6, or 8 on a Number Line; Recognize Equivalent Fractions; Use Visual Models to Represent Equivalent Fractions; Compare Fractions with the Same Numerator or Denominator	Generate Equivalent Fractions; Compare Fractions Using Common Numerators or Denominators; Decompose Fractions as Sum of Fractions with the same Denominator; Decompose Fractions as Multiples of Unit Fractions; Use Models to Illustrate Equivalent Fractions; Compare Fractions Using Benchmark Fractions Such as 1/2; Add and Subtract Mixed Numbers Using Equivalent Fractions; Multiply Fractions by a Whole Number; Multiply and Divide Fractions; Solve Problems Involving Multiplication and Division of Fractions; Convert Fractions with Denominators 10 or 100 to Decimals; Solve Problems Involving Addition and Subtraction of Fractions	
6. Expressions and Equations			Write and Evaluate Algebraic Expressions with Exponents; Identify and Generate Equivalent Algebraic Expressions; Use Substitution to Determine if an Equation or Inequality is True; Express One Quantity as the Dependent Variable of the Another Quantity; Add, Subtract, Factor, and Expand Linear Expressions; Construct Equations and Inequalities to Solve Problems; Apply the Properties of Quantities in Scientific Notation; Perform the Order of Operations on Algebraic Expressions; Reason and Solve One-Variable Equations and Inequalities; Use Variables to Represent Two Related Quantities in a Problem; Use Graphs, Tables and Equations to Show Variable Relationships; Rewrite Expressions to Show Relationships Between Quantities; Solve Problems Using Algebraic Equations with Rational Coefficients; Evaluate Square and Cube Roots of Perfect Squares and Cubes; Graph Proportional Relationships - Unit Rate as the Slope; Solve Simultaneous Linear Equations in One Variable	
7. The Number System			Fluently Divide Multi-Digit Numbers; Fluently Add, Subtract, Multiply and Divide Multi-Digit Decimals; Find the Greatest Common Factor of Two Numbers ≤ 100; Apply Distributive Property to Generate Equivalent Expressions; Use Integers to Represent Quantities in Real-World Contexts; Plot/Find Ordered Pairs of Rational Numbers on a Coordinate Plane; Explain Statements of Order and Inequality Using a Number Line; Add and Subtract Rational Numbers Using a Number Line; Find the Least Common Multiple of Two Numbers ≤ 12; Use Models to Illustrate, Interpret and Compute Quotients of Fractions; Solve Problems Involving Division of Fractions by Fractions; Plot/Find Rational Numbers on a Number Line; Understand and Evaluate Absolute Value of Rational Numbers; Solve Problems by Graphing; Multiply and Divide Rational Numbers; Convert a Rational Number to Decimal; Solve Problems Involving Basic Operations on Rational Numbers; Find Rational Approximations of Irrational Numbers; Estimate the Location of Irrational Numbers on a Number Line	
8. Ratios and Proportional Relationships			Describe a Relationship Between Two Quantities Using a Ratio; Explain the Unit Rate a/b Associated with the Ratio a:b, with b ≠ 0; Use Various Techniques to Solve Problems Involving Ratios; Represent Proportional Relationships by Equations and Graphs; Solve Problems Involving Proportional Relationships	
9. Statistics and Probability			Discuss Statistical Questions Involving Variability in Data; Discuss Statistical Questions Involving Center, Spread and Overall Shape; Discuss the Measure of Center and Variation for a Numerical Data Set; Display Numerical Data in Plots on a Number Line: Dot Plots, Histograms, Box Plots; Relate Measures of Center and Variability to Data Distribution and Context; Draw Informal Comparative Inferences About Two Populations; Find or Approximate the Probability of Simple & Compound Events with Various Techniques; Construct and Interpret Scatter Plots from Two-Way Tables and Vice Versa; Summarize and Describe Numerical Data Sets; Use Interquartile Range and MAD to Draw Comparative Inferences; Use Random Sampling to Draw Inferences About a Population; Use the Equation of a Linear Model to Solve Problems	
10. Functions			Define, Evaluate and Compare Functions; Interpret the Equation y = mx + b as Defining a Linear Function; Construct a Function to Model Linear Relationships; Describe Qualitatively or Sketch the Functional Relationship Between Two Quantities	

TABE Level M

Adult Basic Education (Mathematics) Curriculum Matrix

Domain	NRS Level 1	NRS Level 2	NRS Level 3	NRS Level 4
1. Number and Operations: Base Ten	Place Value of 2-Digit Numbers; Add and Subtract 2-Digit Numbers; Compare 2-Digit Numbers; Model Addition and Subtraction of 2-Digit Numbers	Place Value of 3-Digit Numbers; Add and Subtract 3-Digit Numbers; Round Whole Numbers to the Nearest Tens or Hundreds; Use Properties of Operations to Perform Multi-Digit Arithmetic; Compare 3-Digit Numbers; Model Addition and Subtraction of 3-Digit Numbers; Multiply 1-Digit Numbers By 2-Digit Multiples of 10; Mentally Add and Subtract 10 or 100 to 3-Digit Numbers	Generalize Understanding of Place Value; Read and Write Multi-Digit Numbers in Names and Expanded Form; Multiply 4-Digit Numbers by 1- to 2-Digit Numbers; Use Place Value to Understand Decimals; Compare Any Multi-Digit Number; Basic Operations with Multi-Digit Numbers in Standard Algorithm; Round Multi-Digit Numbers to Any Place Value; Perform Basic Operations on Decimal Numbers Using Multiple Strategies; Divide 4-Digit Numbers by 1-Digit Numbers; Round Decimals to Any Place; Read, Write, and Compare Decimals to Thousandths; Divide 4-Digit Numbers by 2-Digit Numbers Using Multiple Strategies	
2. Operations and Algebraic Thinking	Solve Addition and Subtraction Problems within 20; The Equal Sign; Commutative and Associative Property of Addition; Solving Addition and Subtraction Equations	Solve Addition and Subtraction Problems within 100; Solve Multiplication and Division Problems within 100; Multiplication Facts within 100; Solve 2-Step Problems or Equations; Commutative and Associative Property of Multiplication; Solve Multiplication and Division Equations; Distributive Property of Multiplication; Model Multiplication and Division within 100	Solve Multi-Step Problems Using Basic Operations; Interpret Multiplication as Comparison Statements; Multiples of 1-Digit Numbers Up to 100; Check Answers Using Mental Computation and Estimation; Solve Problems Involving Multiplicative Comparisons; Find All Factor Pairs of Any 2-Digit Whole Number; Prime and Composite Numbers within 100; Write and Interpret Numerical Expressions; Interpret Expressions without Evaluating Them; Generate and Analyze Numeric and Geometric Patterns; Identify Inexplicit Features of a Pattern from a Rule	
3. Measurement and Data	Organize, Represent, and Interpret 3 Categories of Data; Indirectly Measure Lengths through Iteration	Analyze and Generate Picture Graphs and Bar Graphs; Analyze and Generate Line Plots; Measure and Estimate Lengths in Standard Units; Solve Problems Involving Time, Volume, and Mass; Represent Whole Number Lengths on a Number Line; Measuring and Estimating Areas of Plane Figures; Solve Problems Involving Perimeter of Polygons; Use Areas to Model Addition and Multiplication	Solve Problems in Length, Time, Volume, Mass and Money including Fractions; Solve Problems in Length, Time, Volume, Mass and Money including Decimals; Solve Problems Involving Information Presented in Line Plots; Recognize Angles; Apply Area and Perimeter Formulas for Rectangles; Convert Measurements within a System; Organize Unit Fraction Data (1/2, 1/4, 1/8) in a Line Plot; Understand Concepts of Angle Measurement; Measure and Sketch Angles in Whole-Number Degrees; Solve Addition and Subtraction Problems for Unknown Angles	
4. Geometry	Analyze, Compare, and Compose 3-Dimensional Shapes; 2- and 3-Dimensional Composite Shapes	Analyze, Draw and Compare Shapes Having Specified Attributes; Identify Common Polygons and 3-Dimensional Figures; Categorize Shapes with Common Attributes; Partition Shapes into Parts with Equal Areas	Draw and Identify Points, Lines, Line segments, and Rays; Solve Problems by Graphing Points on the Coordinate Plane; Solve Problems Involving Area, Surface Area, and Volume; Solve Polygons in a Coordinate Plane; Solve Problems Involving Scale Drawings of Geometric Figures; Produce Congruence and Similarity Using Models; Angle Sum and Exterior Angles of Triangles and Transversals; Draw and Identify Angles, Perpendicular and Parallel Lines; Classify 2-Dimensional Figures into Categories Based on Properties; Find Areas of Polygons by Composing or Decomposing; Find the Length of a Side with the Same First or Second Coordinate; Solve Problems Involving Angle Meas., Areas, SA and Volume; Recognize Congruence and Similarity from Transformations; Explain and Apply the Pythagorean Theorem; Represent 3-Dimensional Figures Using Nets; Use Nets to Find the Surface Area of Figures	
5. Number and Operations: Fractions		Represent Fractions with Denominators 2, 3, 4, 6, or 8 on a Number Line; Recognize Equivalent Fractions; Use Visual Models to Represent Equivalent Fractions; Compare Fractions with the Same Numerator or Denominator	Generate Equivalent Fractions; Compare Fractions Using Common Numerators or Denominators; Decompose Fractions as Sum of Fractions with the same Denominator; Decompose Fractions as Multiples of Unit Fractions; Use Models to Illustrate Equivalent Fractions; Compare Fractions Using Benchmark Fractions Such as 1/2; Add and Subtract Mixed Numbers Using Equivalent Fractions; Multiply Fractions by a Whole Number; Multiply and Divide Fractions; Solve Problems Involving Multiplication and Division of Fractions; Convert Fractions with Denominators 10 or 100 to Decimals; Solve Problems Involving Addition and Subtraction of Fractions	
6. Expressions and Equations			Write and Evaluate Algebraic Expressions with Exponents; Identify and Generate Equivalent Algebraic Expressions; Use Substitution to Determine if an Equation or Inequality is True; Express One Quantity as the Dependent Variable of the Another Quantity; Add, Subtract, Factor, and Expand Linear Expressions; Construct Equations and Inequalities to Solve Problems; Apply the Properties of Quantities in Scientific Notation; Perform the Order of Operations on Algebraic Expressions; Reason and Solve One-Variable Equations and Inequalities; Use Variables to Represent Two Related Quantities in a Problem; Use Graphs, Tables and Equations to Show Variable Relationships; Rewrite Expressions to Show Relationships Between Quantities; Solve Problems Using Algebraic Equations with Rational Coefficients; Evaluate Square and Cube Roots of Perfect Squares and Cubes; Graph Proportional Relationships - Unit Rate as the Slope; Solve Simultaneous Linear Equations in One Variable	
7. The Number System			Fluently Divide Multi-Digit Numbers; Fluently Add, Subtract, Multiply and Divide Multi-Digit Decimals; Find the Greatest Common Factor of Two Numbers ≤ 100; Apply Distributive Property to Generate Equivalent Expressions; Use Integers to Represent Quantities in Real-World Contexts; Plot/Find Ordered Pairs of Rational Numbers on a Coordinate Plane; Explain Statements of Order and Inequality Using a Number Line; Add and Subtract Rational Numbers Using a Number Line; Find the Least Common Multiple of Two Numbers ≤ 12; Use Models to Illustrate, Interpret and Compute Quotients of Fractions; Solve Problems Involving Division of Fractions by Fractions; Plot/Find Rational Numbers on a Number Line; Understand and Evaluate Absolute Value of Rational Numbers; Solve Problems by Graphing; Multiply and Divide Rational Numbers; Convert a Rational Number to Decimal; Solve Problems Involving Basic Operations on Rational Numbers; Find Rational Approximations of Irrational Numbers; Estimate the Location of Irrational Numbers on a Number Line	
8. Ratios and Proportional Relationships			Describe a Relationship Between Two Quantities Using a Ratio; Explain the Unit Rate a/b Associated with the Ratio a:b, with b ≠ 0; Use Various Techniques to Solve Problems Involving Ratios; Represent Proportional Relationships by Equations and Graphs; Solve Problems Involving Proportional Relationships	
9. Statistics and Probability			Discuss Statistical Questions Involving Variability in Data; Discuss Statistical Questions Involving Center, Spread and Overall Shape; Discuss the Measure of Center and Variation for a Numerical Data Set; Display Numerical Data in Plots on a Number Line: Dot Plots, Histograms, Box Plots; Relate Measures of Center and Variability to Data Distribution and Context; Draw Informal Comparative Inferences About Two Populations; Find or Approximate the Probability of Simple & Compound Events with Various Techniques; Construct and Interpret Scatter Plots from Two-Way Tables and Vice Versa; Summarize and Describe Numerical Data Sets; Use Interquartile Range and MAD to Draw Comparative Inferences; Use Random Sampling to Draw Inferences About a Population; Use the Equation of a Linear Model to Solve Problems	
10. Functions			Define, Evaluate and Compare Functions; Interpret the Equation y = mx + b as Defining a Linear Function; Construct a Function to Model Linear Relationships; Describe Qualitatively or Sketch the Functional Relationship Between Two Quantities	

TABE Level D

Adult Basic Education (Mathematics) Curriculum Matrix

Domain	NRS Level 1		NRS Level 2				NRS Level 3			NRS Level 4				
1. Number and Operations: Base Ten	Place Value of 2-Digit Numbers	Add and Subtract 2-Digit Numbers	Place Value of 3-Digit Numbers	Add and Subtract 3-Digit Numbers	Round Whole Numbers to the Nearest Tens or Hundreds	Use Properties of Operations to Perform Multi-Digit Arithmetic	Generalize Understanding of Place Value	Read and Write Multi-Digit Numbers in Names and Expanded Form	Multiply 4-Digit Numbers by 1- to 2-Digit Numbers	Use Place Value to Understand Decimals				
	Compare 2-Digit Numbers	Model Addition and Subtraction of 2-Digit Numbers	Compare 3-Digit Numbers	Multiply 1-Digit Numbers By 2-Digit Multiples of 10	Mentally Add and Subtract 10 or 100 to 3-Digit Numbers	Compare Any Multi-Digit Number	Round Multi-Digit Numbers to Any Place Value	Round 4-Digit Numbers by 1-Digit Numbers	Read, Write, and Compare Decimals to Thousandths					
							Basic Operations with Multi-Digit Numbers in Standard Algorithm	Perform Basic Operations on Decimal Numbers Using Multiple Strategies	Round Decimals to Any Place	Divide 4-Digit Numbers by 2-Digit Numbers Using Multiple Strategies				
2. Operations and Algebraic Thinking	Solve Addition and Subtraction Problems within 20	The Equal Sign	Solve Addition and Subtraction Problems within 100	Solve Multiplication and Division Problems within 100	Multiplication Facts within 100	Solve 2-Step Problems or Equations	Solve Multi-Step Problems Using Basic Operations	Interpret Multiplication as Comparison Statements	Interpret the Remainder in Problems	Multiples of 1-Digit Numbers Up to 100				
	Commutative and Associative Property of Addition	Solving Addition and Subtraction Equations	Commutative and Associative Property of Multiplication	Solve Multiplication and Division Equations	Distributive Property of Multiplication	Model Multiplication and Division within 100	Check Answers Using Mental Computation and Estimation	Solve Problems Involving Multiplicative Comparisons	Find All Factor Pairs of Any 2-Digit Whole Number	Prime and Composite Numbers within 100				
						Write and Interpret Numerical Expressions	Interpret Expressions without Evaluating Them	Generate and Analyze Numeric and Geometric Patterns	Identify Inexplicit Features of a Pattern from a Rule					
3. Measurement and Data	Organize, Represent, and Interpret 3 Categories of Data	Indirectly Measure Lengths through Iteration	Analyze and Generate Picture Graphs and Bar Graphs	Analyze and Generate Line Plots	Measure and Estimate Lengths in Standard Units	Solve Problems Involving Time, Volume and Mass	Solve Problems in Length, Time, Volume, Mass and Money Including Fractions	Solve Problems in Length, Time, Volume, Mass and Money Including Decimals	Solve Problems Involving Information Presented in Line Plots	Recognize Angles				
			Represent Whole Number Lengths on a Number Line	Measuring and Estimating Areas of Plane Figures	Solve Problems Involving Perimeter of Polygons	Use Areas to Model Addition and Multiplication	Apply Area and Perimeter Formulas for Rectangles	Convert Measurements within a System	Organize Unit Fraction Data (1/2, 1/4, 1/8) in a Line Plot	Understand Concepts of Angle Measurement				
						Measure and Sketch Angles in Whole-Number Degrees	Solve Addition and Subtraction Problems for Unknown Angles							
4. Geometry	Analyze, Compare, and Compose 3-Dimensional Shapes	2- and 3-Dimensional Composite Shapes	Analyze, Draw and Compare Shapes Having Specified Attributes	Identify Common Polygons and 3-Dimensional Figures	Categorize Shapes with Common Attributes	Partition Shapes into Parts with Equal Areas	Draw and Identify Points, Lines, Line segments, and Rays	Solve Problems by Graphing Points on the Coordinate Plane	Solve Problems Involving Area, Surface Area, and Volume	Draw Polygons in a Coordinate Plane	Solve Problems Involving Scale Drawings of Geometric Figures	Produce Congruence and Similarity Using Models	Angle Sum and Exterior Angles of Triangles and Transversals	
							Draw and Identify Angles, Perpendicular and Parallel Lines	Classify 2-Dimensional Figures into Categories Based on Properties	Find the Length of a Side by Composing or Decomposing	Find the Length of a Side with the Same First or Second Coordinate	Solve Problems Involving Angle Meas., Areas, SA and Volume	Recognize Congruence and Similarity from Transformations	Explain and Apply the Pythagorean Theorem	
							Represent 3-Dimensional Figures Using Nets	Use Nets to Find the Surface Area of Figures						
5. Number and Operations: Fractions			Represent Fractions with Denominators 2, 3, 4, 6, or 8 on a Number Line	Recognize Equivalent Fractions on a Number Line	Use Visual Models to Represent Equivalent Fractions	Compare Fractions with the Same Numerator or Denominator	Generate Equivalent Fractions	Compare Fractions Using Common Numerators or Denominators	Decompose Fractions as Sum of Fractions with the same Denominator	Decompose Fractions as Multiples of Unit Fractions				
							Use Models to Illustrate Equivalent Fractions	Compare Fractions Using Benchmark Fractions Such as 1/2	Add and Subtract Mixed Numbers Using Equivalent Fractions	Multiply Fractions by a Whole Number				
							Multiply and Divide Fractions	Solve Problems Involving Multiplication and Division of Fractions	Convert Fractions with Denominators 10 or 100 to Decimals	Solve Problems Involving Addition and Subtraction of Fractions				
6. Expressions and Equations							Write and Evaluate Algebraic Expressions with Exponents	Add and Generate Equivalent Algebraic Expressions	Use Substitution to Determine if an Equation or Inequality is True	Express One Quantity as the Dependent Variable of the Another Quantity	Add, Subtract, Factor, and Expand Linear Expressions	Construct Equations and Inequalities to Solve Problems	Apply the Properties of Exponents to Generate Equivalent Expressions	Solve Problems Involving Quantities in Scientific Notation
							Perform the Order of Operations on Algebraic Expressions	Reason and Solve One-Variable Equations and Inequalities	Use Variables to Represent Two Related Quantities in a Problem	Use Graphs, Tables and Equations to Show Variable Relationships	Rewrite Expressions to Show Relationships Between Quantities	Solve Problems Using Algebraic Equations with Rational Coefficients	Evaluate Square and Cube Roots of Perfect Squares and Cubes	Graph Proportional Relationships - Unit Rate as the Slope
											Solve Simultaneous Linear Equations in One Variable			
7. The Number System							Fluently Divide Multi-Digit Numbers	Fluently Add, Subtract, Multiply and Divide Multi-Digit Decimals	Find the Greatest Common Factor of Two Numbers ≤ 100	Apply Distributive Property to Generate Equivalent Expressions	Use Integers to Represent Quantities in Real-World Contexts	Plot/Find Ordered Pairs of Rational Numbers on a Coordinate Plane	Explain Statements of Order and Inequality Using a Number Line	Add and Subtract Rational Numbers Using a Number Line
							Find the Least Common Multiple of Two Numbers ≤ 12	Use Models to Illustrate, Interpret and Compute Quotients of Fractions	Solve Problems Involving Division of Fractions by Fractions		Plot/Find Rational Numbers on a Number Line	Understand and Evaluate Absolute Value of Rational Numbers	Solve Problems by Graphing	Multiply and Divide Rational Numbers
											Convert a Rational Number to Decimal	Solve Problems Involving Basic Operations on Rational Numbers	Find Rational Approximations of Irrational Numbers	Estimate the Location of Irrational Numbers on a Number Line
8. Ratios and Proportional Relationships							Describe a Relationship Between Two Quantities Using a Ratio			Explain the Unit Rate a/b Associated with the Ratio a:b, with b ≠ 0	Use Various Techniques to Solve Problems Involving Ratios	Represent Proportional Relationships by Equations and Graphs	Solve Problems Involving Proportional Relationships	
9. Statistics and Probability			Discuss Statistical Questions Involving Variability in Data		Discuss Statistical Questions Involving Center, Spread and Overall Shape		Discuss the Measure of Center and Variation for a Numerical Data Set		Display Numerical Data in Plots on a Number Line: Dot Plots, Histograms, Box Plots	Relate Measures of Center and Variability to Data Distribution and Context	Draw Informal Comparative Inferences About Two Populations	Find or Approximate the Probability of Simple & Compound Events with Various Techniques	Construct and Interpret Scatter Plots from Two-Way Tables and Vice Versa	
										Summarize and Describe Numerical Data Sets	Use Interquartile Range and MAD to Draw Comparative Inferences	Use Random Sampling to Draw Inferences About a Population	Use the Equation of a Linear Model to Solve Problems	
10. Functions										Define, Evaluate and Compare Functions	Interpret the Equation y = mx + b as Defining a Linear Function	Construct a Function to Model Linear Relationships	Describe Qualitatively or Sketch the Functional Relationship Between Two Quantities	

Applications of the TABE Overlays

- Centralized assessment resource for teachers and students.

- Clearly identified and chunked assessment targets or objectives

- Checklist of major ABE mathematics concepts

- Scope and sequence guide for educators which helps lesson planning and pacing

- Resource correlation guide for teachers and students

- A tool for student grouping for differentiating instruction

- A progress monitoring tool for teachers and students

Sample Pacing Guide

| Domain	NRS Level 1		NRS Level 2			
1. Number and Operations: Base Ten	Place Value of 2-Digit Numbers **Week 1**	Add and Subtract 2-Digit Numbers	Place Value of 3-Digit Numbers	Add and Subtract 3-Digit Numbers **Week 1**	Round Whole Numbers to the Nearest Tens or Hundreds	Use Properties of Operations to Perform Multi-Digit Arithmetic
	Compare 2-Digit Numbers	Model Addition and Subtraction of 2-Digit Numbers	Compare 3-Digit Numbers	Model Addition and Subtraction of 3-Digit Numbers	Multiply 1-Digit Numbers By 2-Digit Multiples of 10	Mentally Add and Subtract 10 or 100 to 3-Digit Numbers
2. Operations and Algebraic Thinking	Solve Addition and Subtraction Problems within 20 **Week 2**	The Equal Sign	Solve Addition and Subtraction Problems within 100	Solve Multiplication and Division Problems within 100 **Week 2**	Multiplication Facts within 100	Solve 2-Step Problems or Equations
	Commutative and Associative Property of Addition	Solving Addition and Subtraction Equations	Commutative and Associative Property of Multiplication	Solve Multiplication and Division Equations	Distributive Property of Multiplication	Model Multiplication and Division within 100
3. Measurement and Data	Organize, Represent, and Interpret 3 Categories of Data **Week 3**	Indirectly Measure Lengths through Iteration	Analyze and Generate Picture Graphs and Bar Graphs	Analyze and Generate Line Plots	Measure and Estimate Lengths in Standard Units	Solve Problems Involving Time, Volume and Mass
			Represent Whole Number Lengths on a Number Line	Measuring and Estimating Areas of Plane Figures	Solve Problems Involving **Week 3** Perimeter of Polygons	Use Areas to Model Addition and Multiplication
4. Geometry	Analyze, Compare, and Compose 3-Dimensional Shapes **Week 4**	2- and 3-Dimensional Composite Shapes	Analyze, Draw and Compare Shapes Having Specified Attributes	Identify Common Polygons and 3-Dimensional Figures	Categorize Shapes with Common Attributes **Week 4**	Partition Shapes into Parts with Equal Areas
5. Number and Operations: Fractions			Represent Fractions with Denominators 2, 3, 4, 6, or 8 on a Number Line	Recognize Equivalent Fractions on a Number Line	Use Visual Models to Represent Equivalent Fractions **Week 5**	Compare Fractions with the Same Numerator or Denominator

Sample Resource Guide

Domain	NRS Level 1		NRS Level 2			
1. Number and Operations: Base Ten	Place Value of 2-Digit Numbers	Add and Subtract 2-Digit Numbers	Place Value of 3-Digit Numbers	Add and Subtract 3-Digit Numbers	Round Whole Numbers to the Nearest Tens or Hundreds	Use Properties of Operations to Perform Multi-Digit Arithmetic
	Compare 2-Digit Numbers	Model Addition and Subtraction of 2-Digit Numbers	Compare 3-Digit Numbers	Model Addition and Subtraction of 3-Digit Numbers	Multiply 1-Digit Numbers By 2-Digit Multiples of 10	Mentally Add and Subtract 10 or 100 to 3-Digit Numbers
2. Operations and Algebraic Thinking	Solve Addition and Subtraction Problems up to 20	The Equal Sign	Solve Addition and Subtraction Problems within 100	Solve Multiplication and Division Problems within 100	Multiplication Facts within 100	Solve 2-Step Problems or Equations
	Commutative and Associative Property of Addition	Solving Addition and Subtraction Equations	Commutative and Associative Property of Multiplication	Solve Multiplication and Division Equations	Distributive Property of Multiplication	Model Multiplication and Division within 100
3. Measurement and Data	Organize, Represent, and Interpret 3 Categories of Data	Indirectly Measure Lengths through Iteration	Analyze and Generate Picture Graphs and Bar Graphs	Analyze and Generate Line Plots	Measure and Estimate Lengths in Standard Units	Solve Problems Involving Time, Volume and Mass
			Represent Whole Number Lengths on a Number Line	Measuring and Estimating Areas of Plane Figures	Solve Problems Involving Perimeter of Polygons	Use Areas to Model Addition and Multiplication
4. Geometry	Analyze, Compare, and Compose 3-Dimensional Shapes	2- and 3-Dimensional Composite Shapes	Analyze, Draw and Compare Shapes Having Specified Attributes	Identify Common Polygons and 3-Dimensional Figures	Categorize Shapes with Common Attributes	Partition Shapes into Parts with Equal Areas
5. Number and Operations: Fractions			Represent Fractions with Denominators 2, 3, 4, 6, or 8 on a Number Line	Recognize Equivalent Fractions on a Number Line	Use Visual Models to Represent Equivalent Fractions	Compare Fractions with the Same Numerator or Denominator

Overlaid text across the table: Pages 1-9 · Pages 28-31 · FASST Math Activity 6 · Pages 10-15 · IPDAE Lesson Plan · IPDAE Pre-Algebra Video · Pages 16-27 · IPDAE Grab & Go Video · Online Unit 3 · Teacher Worksheets 3-6 · Chapter 2 · PurpleMath.com

Reflection:

What other uses for the TABE Overlays can you envision?

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_____
_____
_____
_____

Annotating Using Adobe Acrobat Reader
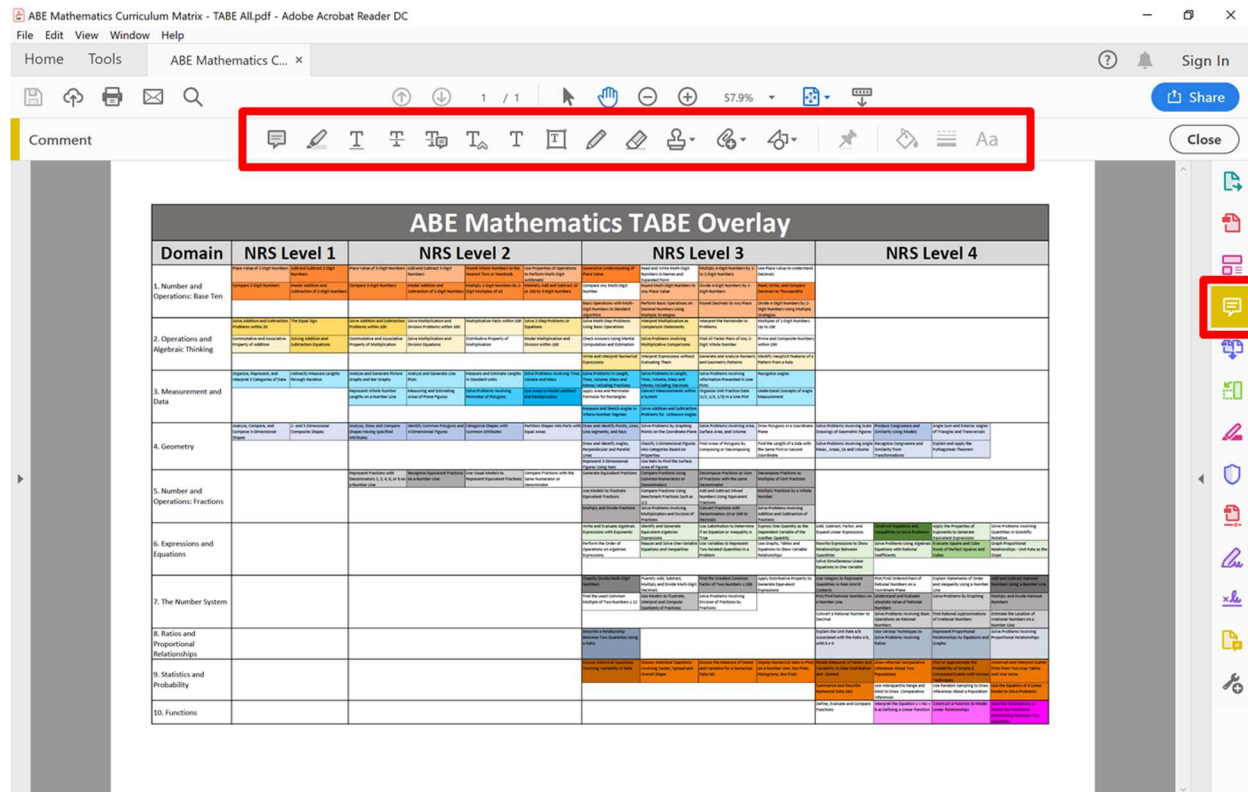
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More Things to Come

- Hyperlinked ABE Mathematics Curriculum Matrix on the IPDAE Website

- ABE Math Study Guides Add-On

- Math Manlipulatives Overlay

- GED Mathematical Reasoning Matrix

Now Available on the IPDAE Website

- Workshops

- E-Learning Modules

- Lesson Plans

- Grab and Gos (videos)

- Webinar Wednesdays

- Toolkits

- Career Exploration

- Links