

	Suggested Pre Algebra Lessons Shown in Green				
	MATHOPS.COM Student Record				
Name	_____		Date	Started:	_____
1 Stuff You Need to Know for Algebra - Integers (IN)					
		Date	Quiz %	Worksheet	Comments
1.01	Adding Integers Using a Number Line				
1.02	Football and other Integer Word Problems				
1.03	Subtracting Integers Using a Number Line				
1.04	Introduction to Absolute Value				
1.05	Using Absolute Value to combine Integers				
1.06	Multiplying Integers Using a Number Line				
1.07	Multiplying Integers- Rules and Tricks				
1.08	Dividing Integers				
1.09	Dividing Integers- Rules and Tricks				
2 More Stuff You Need to Know for Algebra - Factoring and Fractions (FR)					
		Date	Quiz %	Worksheet	Comments
2.01	Factoring Integers				
2.02	Least Common Multiple				
2.03	Simplifying Fractions				
2.04	Adding and Subtracting Fractions				
2.05	Multiplying Fractions				
2.06	Dividing Fractions				
2.07	Converting Fractions to Decimals				

3 Even More Random Stuff You Need to Know for Algebra (RS)					
		Date	Quiz %	Worksheet	Comments
3.01	Exponents and Powers				
3.02	Order of Operations				
3.03	Working with proportions				
3.04	Coordinate Grids				
4 Properties and Mental Math (PR)					
		Date	Quiz %	Worksheet	Comments
4.01	Zero, Identity and Inverse Properties				
4.02	Commutative and Associative Properties and Mental Math				
4.03	Distributive Property and Mental Math				
4.04	Properties Cheat Sheet		N/A	N/A	Study Aid
5 Expressions and Equations (EQ)					
		Date	Quiz %		Comments
5.01	Like Terms				
5.02	Expressions vs. Equations				
5.03	Solving One Step Equations Using Addition and Subtraction				
5.04	Solving One Step Equations Using Multiplication and Division				
5.05	Solving Two Step Equations				
5.06	Multistep Equations: Combining Like Terms & Variables on Both Sides				
5.07	Multistep Equations with Parenthesis				
5.08	Combining Like Terms with Multiple Variables				
6 Weighted Averages (WA)					
		Date	Quiz %	Worksheet	Comments
6.01	Weighted Averages Introduction: Slugging Average				
6.02	Weighted Averages: Weighted Grades				
6.03	Weighted Averages Grade Point Average Example				
6.04	Weighted Averages: Methods of Solving and Figuring in Exam Grades				
6.05	Weighted Averages Social Studies Connection		N/A	N/A	
	Worksheet Only: WA Review		N/A		

7	Intro to Functions (IF)				
		Date	Quiz %	Worksheet	Comments
7.01	Relations and Functions Defined				
7.02	Function Notation				
7.03	Parent Functions				
7.04	Introduction to Graphing Transformations				
8	Linear Functions (LF)				
		Date	Quiz %	Worksheet	Comments
8.01	Introduction to Linear Functions			N/A	
8.02	Linear Tables from Graphs				
8.03	Slope From Two Points				
8.04	Slope - Counting Rise over Run on a Graph				
8.05	Writing a Slope-Intercept Equation from a Graph				
8.06	Graphing Slope-Intercept Equations				
8.07	Creating a table from an Equation				
8.08	Graphing a Slope-Intercept Equation Using Intercepts				
8.09	Writing a Slope-Intercept Equation from the Slope and One Point				
8.1	Writing a Slope-Intercept Equation from Two Points				
8.11	Constant Functions				
8.12	Parallel Lines				
8.13	Perpendicular Lines				
8.14	Standard Form - Graphing Using X and Y Intercepts				
8.15	Converting From Standard Form to Slope-Intercept Form				
8.16	Writing the Point Slope Form of a Line Given the Slope and One Point				
8.17	Graphing Linear Equations in Point Slope Form				
8.18	Converting From Point Slope to Slope Intercept Form				
8.19	Piecewise Functions				
8.2	Linear Graphs: Transformations				

9 Scatter Plots, Bivariate Data Analysis, and Linear Regression (SP)					
		Date	Quiz %	Worksheet	Comments
9.01	Creating Scatter Plots				
9.02	Scatter Plots and Correlation				
9.03	Least Squares Method of Determining Line of Best Fit				
9.04	Linear Correlation and Pearson's Correlation Coefficient				
9.05	Clusters and Outliers (no quiz)		N/A	N/A	
9.06	Scatter Plot Tools - MS Excel			N/A	
	Section Project		N/A	Rubric	
10 Systems of Linear Equations (LS)					
		Date	Quiz %	Worksheet	Comments
10.01	Solving Systems of Linear Equations By Graphing				
10.02	Solving Systems of Equations Using Simple Substitution Part One				
10.03	Solving Systems of Equations Using Simple Substitution Part Two				
10.04	Solving Systems using Substitution and the Distributive Property				
10.05	Solving Systems using Sub. & Dist. Prop. (w. reformatting equations)				
10.06	Solving Systems using Elimination				
10.07	Solving Systems using Elimination (including reformatting equations)				
10.08	Solving Systems using Elimination (finding least common multiple)				
10.09	Systems with no solutions & infinite solutions (parallel & coincide)				
10.1	Systems with Three equations and Three Variables				Often taught in Algebra II
11 Linear Inequalities (LI)					
		Date	Quiz %	Worksheet	Comments
11.01	That Nasty Two Faced Symbol - Which is Which?				
11.02	Graphing inequalities with one variable				
11.03	Solving and graphing Positive one step inequalities				
11.04	Solving and graphing negative one step inequalities				
11.05	Solving and graphing two step inequalities				
11.06	Solving Multi Step Inequalities				
11.07	Graphs of Compound Inequalities				
11.08	Solving Compound inequalities				
11.09	Solving Compound Inequalities with Negative Coefficients				
11.1	Graphing Inequalities with Two Variables (Solid vs. Dashed)				
11.11	Graphing two variable inequalities in standard form				

11.12	Graphing two variable inequalities in point-slope form				
11.13	Graphing systems of linear inequalities				
12	Absolute Value (AV)				
		Date	Quiz %	Worksheet	Comments
12.01	Absolute Value Expressions and Equations				
12.02	Absolute Value Functions: Transformations, Domain, and Range				
12.03	Absolute Value Piecewise Functions				
12.04	Absolute Value Inequalities				
12.05	Advanced Absolute Value Equations - Extraneous Solutions				Often taught in Algebra II
13	Exponents and Exponential Systems (EX)				
		Date	Quiz %	Worksheet	Comments
13.01	Introduction to exponents and exponential functions				
13.01	Properties of Exponents				
13.02	Product Property - Multiplying Polynomials				
13.03	Power of a Power Property				
13.04	Power of a Product Property				
13.05	Combining the Multiplication Properties				
13.06	Power of a Fraction Property				
13.07	Quotient Property of Exponents (positive exponents)				
13.08	Zero and Negative Exponents				
13.09	Quotient Property of Exponents (positive and negative)				
13.1	Arithmetic and Geometric Sequences				
13.11	Recursive Linear Functions				
13.12	Exponential Recursive Functions				
	Exponential Tables and Graphs Worksheet		N/A		
	Recursive Exponential Interest, Growth, and Decay Worksheet		N/A		
13.13	Equations to Model Exponential Recursive Calculations				
	Exponential Interest, Growth, and Decay Worksheet		N/A		
14	Working with Polynomials (PL)				
		Date	Quiz %	Worksheet	Comments
14.01	Introduction to Polynomials - degree of polynomials				
14.02	Adding and Subtracting Polynomial Functions				
14.03	Adding and Subtracting Polynomial Functions With Function Notation				

14.04	Multiplying Binomials				
14.05	Multiplying Polynomials				
	Multiplying Polynomials with Multiple Variables Worksheet		N/A		
14.06	Multiplying with Function Notation				
14.07	Dividing Polynomials - Simplifying				
14.08	Dividing with Function Notation				
	Dividing with Function Notation Advanced Worksheet		N/A		Often taught in Algebra II
					May want to revisit after section 16
15	Square Roots (SQ)				
		Date	Quiz %	Worksheet	Comments
	SQ0: Estimating Square Roots Review Worksheet		N/A		
15.01	Simplifying Square Roots			See Below	
	SQ1 Basic: Simplifying Square Roots Basic Worksheet		N/A		
	SQ1: Simplifying Square Roots with Rationalizing		N/A		
15.02	Simplifying Square Roots Containing Variables			See Below	
	SQ2 Basic: Simplifying Square Roots Basic Worksheet		N/A		
	SQ2: Simplifying Square Roots with Rationalizing		N/A		
15.03	Simplifying Square Root Expressions Using the Complex Conjugate			N/A	Often taught in Algebra II
16	Quadratics (QD)				
		Date	Quiz %	Worksheet	Comments
16.01	Introduction to Quadratic Equation			N/A	
16.02	Graphs and Solutions of Functions in the Form of ax^2 and $ax^2 + c$				
16.03	Area Models of Equations in the Form $ax^2 + bx$			N/A	
16.04	Area Models of Equations in the Form $ax^2 + bx + c$			N/A	
16.05	Converting from Factored Form to Standard Form				
16.06	Factoring Equations in $ax^2 + bx$ format				
16.07	Factoring Equations in $ax^2 + bx + c$ format with $a = 1$				
16.08	Factoring Equations in $ax^2 + bx + c$ format using Guess and Check				
16.09	Special Factors - Difference of Two Squares				
	QD9SB: Squares of Binomials Worksheet		N/A		
16.1	Factoring 4 Terms by Grouping				
16.11	Using Grouping Strategies with Trinomials				
16.12	Getting to the Root of it All - Finding the Roots & Solutions by Factoring				
16.13	Using Roots to Find the Axis of Symmetry				

16.14	Using the Axis of Symmetry to Find the Vertex Point				
16.15	Graphing Using FRAV				
16.16	The -b Over 2a Shortcut				
16.17	Writing the Vertex form of a Quadratic Equation				
16.18	Stating the Vertex from the Vertex Form				
16.19	Converting from Vertex form to Standard Form				
16.2	Solving Equations by Taking the Root ($ax^2 + bx$)				
	QD 20 Splat: Splat Application Worksheet		N/A		
16.21	Solving Vertex Form Equations by Taking the Root				
16.22	Solving Equations by Completing the Square				
16.23	What is the Quadratic Formula				
16.24	Using the Quadratic Formula				
16.25	Imaginary Numbers				Often taught in Algebra II
16.26	Complex Numbers				Often taught in Algebra II
16.27	More Recursive Functions			N/A	Often taught in Algebra II

17 Power Functions with Positive Integer Exponents (Polynomials) (PF)

		Date	Quiz %	Worksheet	Comments
17.01	Power Functions Equations				
17.02	Power Function Tables				
17.03	Introduction to the Symmetry of Power Functions				
17.04	Solving Power Functions by Taking the Root				
17.05	Factoring Power Functions and Expressions Using GCF				
17.06	Solving Power Functions Using GCF				
17.07	Factoring Power Functions and Expressions Using Grouping				
17.08	Solving Power Functions Using Grouping				
17.09	Factoring Power Functions Using Special Products				
17.1	Solving Power Functions Using Special Products				
17.11	Factoring Power Functions – Choosing the Best Method		N/A	N/A	
17.12	Graphs of Power Functions				
17.13	Graphs: transformations to power/polynomial output				
17.14	Graphs: transformations to power/polynomial input				

18 Power Functions with Radicals and Rational Exponents (RR)					
		Date	Quiz %	Worksheet	Comments
18.01	Introduction to Radicals & Radical Functions with Rational Exponents				
18.02	Properties of Radicals				
18.03	Simplifying Radical Expressions				
18.04	Rationalizing Radical Denominators				
18.05	Addind & Subtracting Radicals				
18.06	Multiplying and Dividing Radicals				
18.07	Properties of Rational Exponents				
18.08	Simplifying Rational Exponents				
18.09	Adding and Subtracting with Rational Exponents				
18.1	Multiplying and Dividing with Rational Exponents				
18.11	Solving Radical Equations & Equations with Rational Exponents				
18.12	Radical Functions with Extraneous Solutions				
18.13	Translations to Graphs of Square Root Functions - Domain and Range				
18.14	Translations to Graphs of Cube Root Functions				
19 Variation (VA)					
		Date	Quiz %	Worksheet	Comments
19.01	Direct Variation				
19.02	Inverse Variation				
	Direct and Inverse Variation Review Worksheet		N/A		
19.03	Solving Variation Using Proportions				
19.04	Nth Power Variation				Often taught in Algebra II
19.5	Joint Variation (Advanced Topic)			N/A	Often taught in Algebra II
20 Rational Functions (RF)					
		Date	Quiz %	Worksheet	Comments
20.01	Introduction to Rational Functions				
20.02	Simplifying Rational Functions				
20.03	Solving Rational Functions				
20.04	Holes, Asymptotes, and Graphs				
20.05	Horizontal Asymptotes				

21 Advanced Functions (AF)					
		Date	Quiz %	Worksheet	Comments
21.01	Composite Functions				Often taught in Algebra II
21.02	Intoduction to Inverse Functions			N/A	Often taught in Algebra II
21.03	Writing Inverse Functions				Often taught in Algebra II
21.04	Graphs of Inverse functions			N/A	Often taught in Algebra II
21.05	The Horizontal Line Test				Often taught in Algebra II
21.06	Verifying Inverse Relations				Often taught in Algebra II
21.07	Piecewise Combined			N/A	Often taught in Algebra II