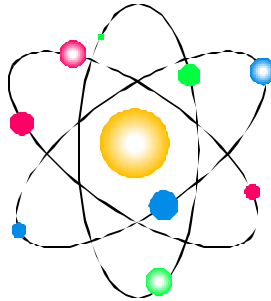


PROJECT ATOMS



NON-DESTRUCTIVE INSPECTION (NDTE)

ESSENTIAL MATHEMATICS SKILLS

		VIDEO TAPE		
SKILLS	TEXT	FULL TITLE	ABBREVIATION	SOFTWARE TITLE
A. (1) Whole Numbers and Variable Expressions				
(1.1) Introduction to whole numbers Order relation between whole numbers Place value Applications	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 1 section 1 PreAlgebra by Martin/Gay (VISIT MATH LAB)	#1 Place Value and Reading Tables		Passkey Lessons Whole Numbers Place Value and Reading Tables

SKILLS	TEXT	VIDEO TAPE		SOFTWARE TITLE
		FULL TITLE	ABBREVIATION	
(1.2) Addition and Subtraction of whole numbers Addition of whole numbers Subtraction of whole numbers Applications and formulas	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 1 section 2 PreAlgebra by Martin/Gay (VISIT MATH LAB)	#1 Adding Whole Numbers And Perimeter #1 Subtracting Whole Numbers		Passkey Lessons Whole Numbers Adding Whole Numbers And Perimeter Subtracting Whole Numbers
(1.3) Multiplication and Division of whole numbers Multiplication of whole numbers Exponents Division of whole numbers	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 1 section 3 PreAlgebra by Martin/Gay (VISIT MATH LAB)	#2 Multiplying Whole Numbers And Area #2 Dividing Whole Numbers		Passkey Lessons Whole Numbers Multiplying Whole Numbers And Area Dividing Whole Numbers
(1.4) Rounding and Estimation Rounding Estimation Applications	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 1 Section 4 PreAlgebra by Martin/Gay (VISIT MATH LAB)	Approximation, Rounding, Estimation (MTH 107) #1 Rounding And Estimating	Approximation, Rounding, Estimation (MTH 107)	Passkey Lessons Decimals Rounding And Estimating

SKILLS	TEXT	VIDEO TAPE		SOFTWARE TITLE
		FULL TITLE	ABBREVIATION	
(1.5) The Order of Operation Agreement The order of operations agreement	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 1 section 5 PreAlgebra by Martin/Gay (VISIT MATH LAB)	The Order Of Operations Agreement - Whole Numbers Expressions #4 Order Of Operations	Order of Oper & ax+b=c	Algebra Mentor Lessons 59-67 The Order Of Operations Agreement Passkey Lessons Order Of Operations Exponents And Order Of Operations

(2) Integers				
(2.1) Introduction to integers Integers and numberline Order relations between integers Opposites Absolute value Applications	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 2 section 1 PreAlgebra by Martin/Gay (VISIT MATH LAB)	#3 Introduction to Integers		Introduction to Integers
(2.2) Addition and subtraction of integers Addition of integers Subtraction of integers Applications and formulas	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 2 section 2 PreAlgebra by Martin/Gay (VISIT MATH LAB)	Adding and Subtracting Integers #3 Adding Integers Subtracting Integers	Adding & -Int. Ordr Oper	Algebra Mentor Lessons 2-31 Addition & Subtraction of Integers Passkey Lesson M1311

SKILLS	TEXT	VIDEO TAPE		SOFTWARE TITLE
		FULL TITLE	ABBREVIATION	
(2.3) Multiplication and Division of integers Multiplication of integers Division of integers Applications	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 2 section 3 PreAlgebra by Martin/Gay (VISIT MATH LAB)	#3 Multiplying and Dividing Integers		Passkey Lesson M1311 Multiplication & Division of Integers
(2.4) The order of operations agreement The order of operations agreement	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 2 section 4 PreAlgebra by Martin/Gay (VISIT MATH LAB)	Order of Operations Integers #4 Order of Operations	Adding & -Int. Ordr oper	Algebra Mentor Lessons 59-65 The Order of Operations Agreement

(3) Fractions				
(3.1) Least common multiple and greatest common factor Least common multiple (LCM) Greatest common factor (GCF) Applications	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 3 section 1 PreAlgebra by Martin/Gay (VISIT MATH LAB)			Algebra Mentor Lessons 157-160 Least Common Multiple & Greatest Common Factor Passkey Lessons Fractions

SKILLS	TEXT	VIDEO TAPE		SOFTWARE TITLE
		FULL TITLE	ABBREVIATION	
(3.2) Introduction to fractions Proper fractions, improper fractions, mixed numbers Equivalent fractions Order relations between two fractions Applications	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 3 section 2 PreAlgebra by Martin/Gay (VISIT MATH LAB)	Math: Fractions & Decimals (F11)	Math: Fractions & Decimals (F11)	Passkey Lessons Fractions Algebra Mentor Lessons 158-160 Introduction to fractions
(3.3) Addition and subtraction of fractions Proper fractions, improper fractions, mixed numbers Equivalent fractions Order relations between two fractions Applications	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 3 section 3 PreAlgebra by Martin/Gay (VISIT MATH LAB)	Addition and Subtraction of Signed Fractions Addition and Subtraction of Mixed Numbers Math: Fractions & Decimals (F11) #6 Adding And Subtracting Fractions With Least Common Denominators Adding And Subtracting Fractions With Unlike Denominators	Addition & -MXD Frac,Exp Addition & - of Sgnd Frac Math: Fractions & Decimals (F11)	Passkey Lessons Fractions Addition & Subtraction Of Fractions Adding And Subtracting Fractions With Least Common Denominators Adding And Subtracting Fractions With Unlike Denominators

SKILLS	TEXT	VIDEO TAPE		SOFTWARE TITLE
		FULL TITLE	ABBREVIATION	
(3.4) Multiplication and division of fractions Multiplication of fractions Division of fractions Applications and formulas	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 3 section 4 PreAlgebra by Martin/Gay (VISIT MATH LAB)	Math: Fractions & Decimals (F11) #6 Multiplying And Dividing Fractions	Math: Fractions & Decimals (F11)	Passkey Lessons Fractions Multiplication & Division Of Fractions Multiplying And Dividing Fractions
(3.5) Exponents, complex fractions, and the order of operations Agreement Exponents Complex fractions The order of operations agreement	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 3 section 5	Fractions, Exponents, Complex Fractions, and the Order of Operations and Agreement	Addition & -MXD #; Frac, Exp	Passkey Lessons Exponents/Square Roots Exponents, Fractions & Order of Operations
(4) Decimals and Real Numbers				
(4.1) Introduction to decimals Place value	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 4 section 1 PreAlgebra by Martin/Gay (VISIT MATH LAB)	Approximation, Rounding, Estimation (MTH 107) #7 Introduction To Decimals	Approximation, Rounding, Estimation (MTH 107)	Passkey Lessons Decimals Introduction To Decimals
(4.2) Addition and Subtraction of Decimals Addition and subtraction of decimals Estimation Applications and formulas	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 4 section 2 PreAlgebra by Martin/Gay (VISIT MATH LAB)	Math: Fractions & Decimals (F11) #8 Adding and Subtracting Decimals	Math: Fractions & Decimals (F11)	Passkey Lessons Decimals Adding and Subtracting Decimals

SKILLS	TEXT	VIDEO TAPE		SOFTWARE TITLE
		FULL TITLE	ABBREVIATION	
(4.3) Multiplication and divisions of decimals Multiplication of decimals Division of decimals Fractions and decimals Application and formulas	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 4 section 3 PreAlgebra by Martin/Gay (VISIT MATH LAB)	Math: Fractions & Decimals (F11) #8 Multiplying Decimals And Circumference Of A Circle Dividing Decimals	Math: Fractions & Decimals (F11)	Passkey Lessons Decimals Multiplication And Division Of Decimals Multiplying Decimals And Circumference Of A Circle Dividing Decimals
(4.4) Radical Expressions Square roots of perfect squares Square roots of whole numbers Applications and formulas	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 4 section 4	#9 Square Roots and the Pythagorean Theorem Rational Exponents & Radicals (Tape #1, #2)	Rational Exponents Radicals Rational Exponents & Radicals (Tape #1, #2)	Passkey Lessons Exponents/Square Roots Algebra Mentor Lessons 225-227 Square Roots and the Pythagorean Theorem
(4.5) Real numbers Real numbers and the real number line Inequalities in one variable Applications	PreAlgebra Text by Aufmann/Barker/Lockwood Chapter 4 section 5 PreAlgebra by Martin/Gay (VISIT MATH LAB)	Naturals, Real Numbers (MTH 106)	Naturals, Real Numbers (MTH 106)	Passkey Lessons Inequalities Inequalities

		VIDEO TAPE		
SKILLS	TEXT	FULL TITLE	ABBREVIATION	SOFTWARE TITLE
(5) Variable Expressions				
(5.1) Properties of real numbers Applications of the properties of real numbers The distributive property		Properties of Real Numbers (Distributive Properties)	Properties, Reals, Simp Exp	Properties of Real Numbers
(5.2) Variable expressions in simplest form Addition of like terms General variable expressions	PreAlgebra by Martin/Gay	Simplifying Variable Expressions #4 Simplifying Algebraic Expressions	Properties; Reals; Simp Exp	Algebra Mentor Lessons 93-94 Lessons 95-106 Variable Expressions in Simplest Form Simplifying Algebraic Expressions

(6) First-Degree Equation				
(6.1) Introduction to equation Solutions of an equation Equations of the form $x+a=b$ Equations of the form $ax=b$		Introduction to Solving Linear Equations- Addition prop of Equations- Multiplication property of Equations #5 Solving Linear Equations In One Variable And Problem Solving	Introduction to Lin Eq	Algebra Mentor Lessons 197-209 Passkey Lessons Equations Introduction to equations Solving Equations And Problem Solving

SKILLS	TEXT	VIDEO TAPE		SOFTWARE TITLE
		FULL TITLE	ABBREVIATION	
(6.2) First-degree equations of the form $ax+b=c$ Equations of the form $ax+b=c$ Applications		Solving Linear Equations of the Form $ax+b=c$	Order of oper & $ax+b=c$	First Degree Equations of the form $ax+b=c$ Passkey Lessons Equations Algebra Mentor Lessons 197 - 209
(6.3) General first-degree equations of the form $ax+b=c$ Equations of the form $ax+b=cx+d$ Equations with parentheses Applications		Solving Linear Equations in One Variable The Equalizer	Solving Linear Eq - 1 Var. The Equalizer	Passkey Lessons Equations General First Degree Equations Algebra Mentor Lessons 197 - 209
(7) Ratio and Proportion				
(7.1) Ratios and rates Ratios and rates Dimensional analysis Applications		#11 Ratios		Ratio, Proportion, And Measurement
(7.2) Proportion Proportions Applications		#11 Proportions		Proportions

		VIDEO TAPE		
SKILLS	TEXT	FULL TITLE	ABBREVIATION	SOFTWARE TITLE
(8) Percent				
(8.1) Percent Percents as decimals or fractions Fractions and decimals as percents		Converting Percent/Fractions/ Decimals #13 Percents, Decimals, and Fractions	Converting %/Frac/Dec	Percent Passkey Lessons Percents Percents, Decimals, and Fractions
(8.2) The basic percent equation The basic percent equation Percent problems using proportions Applications		The Basic Percent Equation #13 Percent Equations and Problem Solving	Converting %/Frac/Dec	The Basic Percent equation Passkey Lessons Percents Percent Percent Equations and Problem Solving
B. (2) Linear Equations and Inequalities in One Variable				
(2.1) Algebraic expressions and combining like terms		Introduction to Solving Linear Equations Addition Property of Equations Solving Linear Equations in One Variable Simplifying Variable Expressions	Introduction to Solv Lin Eq	First Degree Equations of the form $ax+b=c$ General First Degree Equations Passkey Lessons Equations Variable expressions in simplest form

SKILLS	TEXT	VIDEO TAPE		SOFTWARE TITLE
		FULL TITLE	ABBREVIATION	
(2.2) The additive property of equality		Introduction to Solving Linear Equations- Addition Prop of Equations	Introduction to Solv Lin Eq	Passkey Lessons Equations Algebra Mentor Lessons 197-201 Introduction to Equations
(2.3) The multiplicative property of equality		Introduction to Solving Linear Equations- Multiplicative Prop of Equations Solving Linear Equations of the Form $ax+b=c$	Introduction to Solv Lin Eq Order of Oper & $ax+b=c$	Passkey Lessons Equations Introduction to Equations Algebra Mentor Lessons 197-201
(2.4) Combining properties to solve linear equations		Solving Linear Equations In One Variable	Solving Linear Eq- 1 Var	Passkey Lessons Equations General First Degree Equation of the form $ax + b = c$ Combining Properties to Solve Linear Equations
(3) Exponents and Polynomials				
(3.1) Natural number exponents				Passkey Lessons Exponents Algebra Mentor Lessons 50-55 Natural Number Exponents

		VIDEO TAPE		
SKILLS	TEXT	FULL TITLE	ABBREVIATION	SOFTWARE TITLE
(3.2) Integer exponents		Integer Exponents	Integer Exponents	Integer Exponents Passkey Lessons Exponents
(5) Rational Expressions				
(5.1) Reducing lowest terms		Reducing Rational Expressions to Lowest Terms	Reducing Rat Exp-Low Tms	Algebra Mentor 161-168 Reducing to Lowest Terms Passkey Lessons Rational Expressions
(5.2) Multiplying and dividing rational expressions		Multiplication and Division of Rational Expressions	Mult & Div of Rational Expr	Algebra Mentor 169-171; 175-180 Multiplying & Dividing Rational Expressions Passkey Lessons Rational Expressions
(5.3) Addition and subtraction of rational expressions with a common denominator		Adding and Subtracting Algebraic Fractions	Adding & Subt Alg Frac	Algebra Mentor 181-184 Passkey Lessons Rational Expressions

		VIDEO TAPE		
SKILLS	TEXT	FULL TITLE	ABBREVIATION	SOFTWARE TITLE
(5.4) Addition and subtraction of rational expressions with different denominators		Adding and Subtracting Algebraic Fractions	Adding & Subt Alg Frac	Algebra Mentor 185-196 Adding & Subtracting Rational Expressions with Different Denominators Passkey Lessons Rational Expressions
(5.6) Fractional equations		Solving Fractional Equations	Solving Fractional Equa	Applications of Rational Equations Fractional Equations
(8) Radical Expressions				
(8.1)Evaluating radicals		Simplifying Radicals	Simplifying Radicals	Simplifying Radical Expressions
(8.2) Simplifying radical expressions		Operations with Radical Expressions	Operations W/ Radical Expr	Simplifying Radical Expressions
D. (2) Units of Measurement and Approximate Numbers				
(2.1) Units of measurement: The Metric System				Passkey Lessons Measurements
(2.2) Reduction and conversion of units				Passkey Lessons Measurements
(2.3) Approximate numbers and significant digits				

SKILLS	TEXT	VIDEO TAPE		SOFTWARE TITLE
		FULL TITLE	ABBREVIATION	
(2.4) Arithmetic operations with approximate numbers				
D. (5) Simple Equations and Inequalities				
(5.2) Simple formulas and literal equations				
(6) Introduction to geometry				
(6.1) Basic geometric figures				Introduction to Geometry Passkey Lessons Geometry
(6.2) Perimeter		#1 Adding whole numbers and Perimeter		Adding whole numbers and Perimeter Passkey Lessons Geometry
(6.3) Area		#2 Multiplying whole numbers and Area	Function Not & Lin Func	Multiplying whole numbers and Area Passkey Lessons Geometry
(6.4) Volume				Passkey Lessons Geometry

		VIDEO TAPE		
SKILLS	TEXT	FULL TITLE	ABBREVIATION	SOFTWARE TITLE
E. (10) Exponents, Roots, and Radicals				
(10.2) Scientific notation		Scientific Notation (MTH 111)	Scientific Notation (MTH 111)	Passkey Lesson M1363

(15) Additional Topics from Geometry				
(15.1) Angles				Passkey Lessons Geometry
(15.2) Properties of triangles, quad, circles				Passkey Lessons Geometry

		VIDEO TAPE		
SKILLS	TEXT	FULL TITLE	ABBREVIATION	SOFTWARE TITLE
(16) Trigonometry of Right Triangles				
(16.1) The trigonometric ratios		The Sine Function Cosine & Tangent Functions	The Sine Function Cosine & Tangent Functions	
(16.2) Values of the trigonometric ratios				
(16.3) Right triangle applications		Solving Triangles		