

## MA 100D Fundamentals of Algebra Videotapes Page 1 of 4

The following tapes correspond to the text *Introductory & Intermediate Algebra: A Combined Approach*, by Bittinger and Beecher (Addison-Wesley Publ., 1999).

<u>Tape #</u>	<u>Section</u>	<u>Time</u>	<u>Title</u>
<b><i>Chapter 1 Introduction to Real Numbers and Algebraic Expressions</i></b>			
V100D.01	1.1	7:08	Introduction to Algebra
	1.2	20:37	The Real Numbers
	1.3	14:58	Addition of Real Numbers
	1.4	7:52	Subtraction of Real Numbers
V100D.02	1.5	13:52	Multiplication of Real Numbers
	1.6	18:34	Division of Real Numbers
	1.7	22:12	Properties of Real Numbers
	1.8	15:35	Simplifying Expressions; Order of Operations
<b><i>Chapter 2 Solving Equations and Inequalities</i></b>			
V100D.03	2.1	13:27	Solving Equations: The Addition Principle
	2.2	9:36	Solving Equations: The Multiplication Principle
	2.3	16:50	Using the Principles Together
	2.4	16:08	Applications and Problem Solving
V100D.04	2.5	17:13	Applications with Percents
	2.6	6:00	Formulas
	2.7	14:01	Solving Inequalities
	2.8	13:30	Applications and Problem Solving with Inequalities
<b><i>Chapter 3 Graphs of Equations; Data Analysis</i></b>			
V100D.05	3.1	17:53	Graphs and Applications
	3.2	22:02	Graphing Linear Equations
	3.3	7:38	More with Graphing and Intercepts
	3.4	15:28	Applications and Data Analysis with Graphs
<b><i>Chapter 4 Polynomials: Operations</i></b>			
V100D.06	4.1	16:44	Integers as Exponents
	4.2	16:57	Exponents and Scientific Notation
	4.3	16:55	Introduction to Polynomials
	4.4	13:35	Addition and Subtraction of Polynomials
V100D.07	4.5	14:45	Multiplication of Polynomials
	4.6	18:14	Special Products
	4.7	16:46	Operations with Polynomials in Several Variables
	4.8	18:58	Division of Polynomials

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<u>Tape #</u>	<u>Section</u>	<u>Time</u>	<u>Title</u>
<b><i>Chapter 5 Polynomials: Factoring</i></b>			
V100D.08	5.1	13:40	Introduction to Factoring
	5.2	17:34	Factoring Trinomials of the Type $x^2 + bx + c$
	5.3	18:48	Factoring $ax^2 + bx + c$ , $a \neq 1$ Using FOIL
	5.4	10:21	Factoring $ax^2 + bx + c$ , $a \neq 1$ Using Grouping
V100D.09	5.5	15:50	Factoring Trinomial Squares and Differences of Squares
	5.6	15:45	Factoring Sums and Differences of Cubes
	5.7	13:28	Factoring: A General Strategy
	5.8	16:36	Solving Quadratic Equations by Factoring
	5.9	15:57	Applications and Problem Solving
<b><i>Chapter 6 Rational Expressions and Equations</i></b>			
V100D.10	6.1A	15:33	Rational Expressions: Multiplying, Dividing and Simplifying
	6.1B	8:08	Rational Expressions: Multiplying, Dividing and Simplifying
	6.2	10:38	Least Common Multiples and Denominators
	6.3	14:13	Adding Rational Expressions
	6.4	19:18	Subtracting Rational Expressions
	6.5	13:57	Solving Rational Expressions
V100D.11	6.6	15:38	Applications, Proportions and Problem Solving
	6.7	10:58	Formulas and Applications
	6.8	15:00	Complex Rational Expressions
	6.9	17:41	Variation and Applications
<b><i>Chapter 7 Graphs, Functions and Applications</i></b>			
V100D.12	7.1	14:28	Functions and Graphs
	7.2	10:29	Linear Functions: Graphs and Applications
	7.3	11:36	Another Look at Linear Functions
	7.4	18:54	Other Equations of Lines
	7.5	13:39	Applications of Linear Functions
	7.6	7:08	Graphing Linear Inequalities in Two Variables

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<u>Tape #</u>	<u>Section</u>	<u>Time</u>	<u>Title</u>
<b><i>Chapter 8 Systems of Equations</i></b>			
V100D.13	8.1	18:30	Systems of Equations in Two Variables
	8.2	18:24	Solving by Substitution and Elimination
	8.3	18:14	Systems Applied Problems: Systems of Two Equations
V100D.14	8.4	14:22	Systems of Equations in Three Variables
	8.5	16:09	Solving Applied Problems: Systems of Three Equations
	8.6	6:17	Business and Economic Applications
<b><i>Chapter 9 More on Inequalities</i></b>			
V100D.15	9.1	23:49	Sets, Interval Notation, and Inequalities
	9.2	19:41	Intersections, Unions, and Compound Inequalities
	9.3	20:45	Absolute-Value Equations and Inequalities
	9.4	11:04	Systems of Linear Inequalities in Two Variables
<b><i>Chapter 10 Radical Expressions, Equations and Functions</i></b>			
V100D.16	10.1	12:00	Radical Expressions and Functions
	10.2	15:14	Rational Numbers as Exponents
	10.3	16:02	Simplifying Radical Expressions
	10.4	11:02	Addition, Subtraction, and More Multiplication
V100D.17	10.5	13:18	More on Division of Radical Expressions
	10.6	23:30	Solving Radical Equations
	10.7	13:40	Applications Involving Powers and Roots
	10.8	20:23	The Complex Numbers
<b><i>Chapter 11 Quadratic Equations and Functions</i></b>			
V100D.18	11.1	19:29	The Basics of Solving Quadratic Equations
	11.2	16:50	The Quadratic Formula
	11.3	22:05	Applications Involving Quadratic Equations
	11.4	22:05	More on Quadratic Equations

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<u>Tape #</u>	<u>Section</u>	<u>Time</u>	<u>Title</u>
V100D.19	11.5	20:40	Graphs of Quadratic Functions of the type $f(x)=a(x-h)^2+k$
	11.6	14:55	Graphs of Quadratic Functions of the type $f(x)=ax^2 + bx + c$
	11.7	14:23	Mathematical Modeling with Quadratic Functions
	11.8	20:54	Polynomial and Rational Inequalities

***Chapter 12 Exponential and Logarithmic Functions***

V100D.20	12.1	13:32	Exponential Functions
	12.2	21:39	Inverse and Composite Functions
	12.3	11:02	Logarithmic Functions
V100D.21	12.4	14:07	Properties of Logarithmic Functions
	12.5	7:09	Natural Logarithmic Functions
	12.6	24:48	Solving Exponential and Logarithmic Equations
	12.7	11:54	Mathematical Modeling with Exponential and Logarithmic Functions