



PATHWAY **2** CAREERS

## P2C Math: Algebra I

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Tennessee



Total # of Days **126-185**

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	Title	Type	Standard(s)	Mathematical Practices	Career(s)	Number of Days
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	Title	Type	Standard(s)	Mathematical Practices	Career(s)	Number of Days
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	Title	Type	Standard(s)	Mathematical Practices	Career(s)	Number of Days	
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	Title	Type	Standard(s)	Mathematical Practices	Career(s)	Number of Days
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A-7.7	Applying Geometric Sequences	Application	A1.A.CED.A.2, A1.A.CED.A.3, A1.F.BF.A.1.a, A1.F.LE.A.1.a, A1.F.LE.A.2	1, 2, 4	Actuaries	1-2
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A-8.3	Multiplying Monomials and Binomials	Exploration	A1.A.APR.A.1, A1.A.SSE.A.1.a, A1.A.SSE.A.1.b	1, 2, 7	Multiple	1
A-8.4	Multiplying Polynomials	Exploration	A1.A.APR.A.1, A1.A.SSE.A.1.a, A1.A.SSE.A.1.b	1, 2, 7	Multiple	1
A-8.5	Special Products of Polynomials	Exploration	A1.A.APR.A.1, A1.A.SSE.A.1.a, A1.A.SSE.A.1.b	1, 7, 8	Multiple	1
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	A-8.7	Factoring Using the Greatest Common Factor	Exploration	A1.A.APR.A.1	1, 2, 7	Multiple	1
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	A-8.9	Factoring Using Grouping	Exploration	A1.A.APR.A.1	2, 7, 8	Multiple	1
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	A-8.12	Solving Polynomial Equations	Exploration	A1.A.REI.A.1, A1.A.REI.B.3.a, A1.A.REI.D.7	1, 7, 8	Multiple	1-2
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	A-9.3	Applying the Vertex Form of Quadratic Functions	Application	A1.A.CED.A.2, A1.A.CED.A.3, A1.F.IF.C.8.a	1, 2, 4	Atmospheric and Space Scientists	1-2
	A-9.4	Applying Graphs of Quadratic Functions	Application	A1.A.CED.A.2, A1.A.CED.A.3, A1.A.REI.B.3.a, A1.F.IF.C.8.a	4, 6, 7	Aerospace Engineers	1-2
	A-9.5	Solving Quadratic Equations by Graphing and Taking the Square Root	Exploration	A1.A.CED.A.2, A1.A.REI.B.3.a, A1.A.REI.D.6, A1.A.REI.D.7	1, 2, 5, 7	Multiple	1
	A-9.6	Solving Quadratic Equations by Factoring	Exploration	A1.A.REI.B.3.a, A1.A.REI.D.7	1, 2, 4, 8	Multiple	1

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A-9.7	Solving Quadratic Equations by Completing the Square	Exploration	A1.A.REI.B.3.a, A1.A.REI.D.7	1, 2, 7	Multiple	1
A-9.8	Solving Quadratic Equations by Quadratic Formula	Exploration	A1.A.REI.B.3.a, A1.A.REI.D.7	1, 2, 4, 5	Multiple	1
A-9.9	Using Quadratic Equations to Solve Problems	Application	A1.A.REI.B.3.a, A1.A.REI.D.7	1, 4, 6	Physicists	1-2
A-9.10	Comparing Quadratic Functions	Application	A1.A.CED.A.2, A1.F.BF.B.2, A1.F.IF.B.4, A1.F.IF.B.5, A1.F.IF.C.7, A1.F.IF.C.9.a	1, 2, 4	Industrial Production Managers	1-2
A-9.11	Solving Linear-Quadratic Systems Graphically	Exploration	A1.A.REI.B.3.b, A1.A.REI.D.6, A1.A.REI.D.7	1, 2, 4, 5	Multiple	1
A-9.12	Solving Linear-Quadratic Systems Algebraically	Exploration	A1.A.REI.D.6, A1.A.REI.D.7	2, 6, 7	Multiple	1-2
A-9.13	Applying Linear-Quadratic Systems	Application	A1.A.REI.D.6, A1.A.REI.D.7	1, 2, 4	Economists	1-2
<b>10. GRAPHING AND MODELING WITH FUNCTIONS</b>						<b>11-15</b>
A-10.1	Graphing Absolute Value Functions	Exploration	A1.A.CED.A.2, A1.A.CED.A.3, A1.A.REI.D.5, A1.F.BF.B.2, A1.F.IF.B.4, A1.F.IF.C.7, A1.F.LE.A.1.b	1, 2, 7	Multiple	1
A-10.2	Graphing Step Functions	Exploration	A1.A.CED.A.2, A1.A.REI.D.5, A1.F.IF.B.4, A1.F.IF.C.7	1, 2, 7	Multiple	1
A-10.3	Applying Step Functions	Application	A1.A.CED.A.2, A1.A.REI.D.5, A1.F.IF.B.4, A1.F.IF.B.5, A1.F.IF.C.7	1, 2, 4	Cargo and Freight Agents	1-2
A-10.4	Graphing Piecewise-Defined Functions	Exploration	A1.A.CED.A.2, A1.A.REI.D.5, A1.F.IF.B.4, A1.F.IF.C.7	1, 2, 6, 7	Multiple	1
A-10.5	Applying Piecewise-Defined Functions	Application	A1.A.CED.A.2, A1.A.REI.D.5, A1.F.IF.B.4, A1.F.IF.B.5, A1.F.IF.C.7	1, 2, 4	Tax Preparers	1-2
A-10.6	Translations of Graphs of Functions	Exploration	A1.A.CED.A.2, A1.A.REI.D.5, A1.F.BF.B.2, A1.F.IF.B.4, A1.F.LE.A.1.b	1, 2, 7	Multiple	1

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	Title	Type	Standard(s)	Mathematical Practices	Career(s)	Number of Days	
	A-10.7	Stretches and Shrinks of Graphs of Functions	Exploration	A1.F.BF.B.2, A1.F.LE.A.1.b	1, 2, 7	Multiple	1
	A-10.8	Reflections of Graphs of Functions	Exploration	A1.F.BF.B.2, A1.F.LE.A.1.b	1, 6, 7, 8	Multiple	1
	A-10.9	Operations on Functions	Application	A1.F.BF.B.2, A1.F.LE.A.1.b	4, 7, 8	Film and Video Editors	1-2
	A-10.10	Comparing Linear, Exponential, and Quadratic Models	Exploration	A1.F.IF.B.4, A1.F.IF.B.6, A1.F.IF.C.7, A1.F.IF.C.9.a, A1.F.IF.C.9.b, A1.F.LE.A.1.a, A1.F.LE.A.1.b, A1.F.LE.A.1.c, A1.F.LE.B.3	6, 7, 8	Multiple	1
	A-10.11	Applying Comparisons of Linear, Exponential, and Quadratic Models	Application	A1.A.CED.A.2, A1.F.IF.B.4, A1.F.IF.B.6, A1.F.IF.C.7, A1.F.IF.C.9.a, A1.F.IF.C.9.b, A1.F.LE.B.3	1, 2, 4	Appraisers and Assessors of Real Estate	1-2
P	A-10-P	Linear, Quadratic, and Exponential Models	Project (Information Technology)	A1.A.CED.A.2, A1.F.LE.A.1.a, A1.F.LE.A.1.b, A1.F.LE.A.1.c, A1.F.LE.B.3	4, 5, 8	Business Intelligence Analysts	3-6
<b>11. RADICAL EXPRESSIONS AND INVERSE FUNCTIONS</b>							<b>12-17</b>
	A-11.1	Radical Expressions	Exploration	A2.N.RN.A.1.b, A2.N.RN.A.1.c	2, 6, 7	Multiple	1
	A-11.2	Describing and Graphing Square Root Functions	Exploration	A1.A.CED.A.2, A1.A.REI.D.5, A1.F.BF.B.2, A1.F.IF.B.4, A1.F.IF.B.5, A1.F.IF.C.7	1, 6, 7	Multiple	1
	A-11.3	Writing Square Root Functions	Application	A1.A.CED.A.2, A1.A.REI.D.5, A1.A.REI.D.7, A1.F.BF.B.2, A1.F.IF.B.4	1, 2, 4	Radiologic Technologists	1-2
	A-11.4	Applying Square Root Functions	Application	A1.A.CED.A.1, A1.A.REI.D.7	1, 2, 4	Registered Nurses	1-2
	A-11.5	Applying Graphs of Square Root Functions	Application	A1.A.CED.A.2, A1.A.CED.A.3, A1.A.REI.D.5, A1.F.BF.B.2, A1.F.IF.B.4, A1.F.IF.B.5, A1.F.IF.C.7	1, 2, 4	Mechanical Engineers	1-2
	A-11.6	Describing and Graphing Cube Root Functions	Exploration	A1.A.CED.A.2, A1.A.REI.D.5, A1.F.BF.B.2, A1.F.IF.B.4, A1.F.IF.B.5, A1.F.IF.C.7	1, 2, 7	Multiple	1
	A-11.7	Solving Radical Equations	Exploration	A1.A.REI.D.6, A1.A.REI.D.7	1, 2, 5, 7	Multiple	1

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	Title	Type	Standard(s)	Mathematical Practices	Career(s)	Number of Days	
	A-11.8	Inverses of Functions	Exploration	A2.F.BF.B.4.a, A2.F.BF.B.4.b, A2.F.BF.B.4.c	1, 2, 4	Multiple	1
	A-11.9	Inverses of Linear Functions	Exploration	A2.F.BF.B.4.a, A2.F.BF.B.4.b, A2.F.BF.B.4.c	1, 2, 4	Multiple	1
	A-11.10	Inverses of Radical Functions	Exploration	A2.F.BF.B.4.a, A2.F.BF.B.4.b, A2.F.BF.B.4.c	1, 2, 4	Multiple	1
	A-11.11	Inverses of Quadratic Functions	Exploration	A1.A.CED.A.2	1, 2, 4	Multiple	1-2
	A-11.12	Applying Inverse Functions	Application	A2.F.BF.B.4.a, A2.F.BF.B.4.b, A2.F.BF.B.4.c	1, 2, 6	Wind Turbine Service Technicians	1-2
P	A-11-P	Interpreting Functions	Project (Information Technology)	A1.A.CED.A.2, A1.F.IF.B.4, A1.F.IF.B.6, A1.F.IF.C.7, A1.F.LE.B.3	2, 4, 7	Health Informatics Specialists	3-6
<b>12. STATISTICS</b>							<b>11-16</b>
	A-12.1	Measures of Center	Exploration	A1.S.ID.A.1, A1.S.ID.A.3	1, 3, 5	Multiple	1
	A-12.2	Measures of Spread	Exploration	A1.S.ID.A.3	1, 3, 5	Multiple	1
	A-12.3	Applying Measures of Center and Spread	Application	A1.S.ID.A.1, A1.S.ID.A.3	1, 2, 4	Statisticians	1-2
	A-12.4	Representing Data with Box Plots	Exploration	A1.S.ID.A.3	1, 2, 7	Multiple	1
	A-12.5	Distributions of Data	Exploration	A1.S.ID.A.2, A1.S.ID.A.3	2, 4, 7	Multiple	1
	A-12.6	Applying Box Plots	Application	A1.S.ID.A.3	2, 4, 5	Computer and Information Systems Managers	1-2
	A-12.7	Representing Data with Histograms	Exploration	A1.S.ID.A.2, A1.S.ID.A.3	3, 6, 7	Multiple	1
	A-12.8	Applying Histograms	Application	A1.S.ID.A.2, A1.S.ID.A.3	2, 4, 5	Financial Examiners	1-2
	A-12.9	Analyzing Data	Application	A1.S.ID.A.2, A1.S.ID.A.3	2, 3, 4	Market Research Analysts and Marketing Specialists	1-2
	A-12.10	Two-Way Frequency Tables	Exploration	G.S.CP.A.1.b	1, 2, 7	Multiple	1
	A-12.11	Applying Two-Way Frequency Tables	Application	G.S.CP.A.1.b	1, 3, 5	Social Science Research Assistants	1-2
P	A-12-P	Interpreting Categorical and Quantitative Data	Project (Information Technology)	A1.S.ID.A.2, A1.S.ID.A.3	3, 4, 6, 8	Search Marketing Analysts	3-6

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