



PATHWAY **2** CAREERS

P2C Math: Algebra II

Table of Contents & Pacing
Massachusetts



Total # of Days 126-212

	Title	Type	Standard(s)	Mathematical Practices	Career(s)	Number of Days
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S	A2a-1.1	Solving Equations in One Variable	Exploration	AII.A-CED.A.1, AII.A-SSE.A.1.a, AII.A-SSE.A.1.b	1, 6, 7, 8	Multiple 1
S	A2a-1.2	Isolating a Variable	Exploration	AII.A-SSE.A.1.a, AII.A-SSE.A.1.b	2, 3, 4	Multiple 1
S	A2a-1.3	Writing Equations	Exploration	AII.A-CED.A.1, AII.A-CED.A.2, AII.A-CED.A.3, AII.A-SSE.A.1.a, AII.A-SSE.A.1.b	1, 4, 5, 7	Multiple 1
S	A2a-1.4	Absolute Value	Exploration	AII.A-CED.A.1	1, 4, 5, 8	Multiple 1
S	A2a-1.5	Applying Absolute Value	Application	AII.A-CED.A.1, AII.A-CED.A.2, AII.A-CED.A.3	1, 5, 7	Instructional Coordinators 1-2
	A2a-1.6	Exponents and Radicals	Exploration	AI.N-RN.A.1, AI.N-RN.A.2	1, 2, 7, 8	Multiple 1-2
	A2a-1.7	Applying Exponents and Radicals	Application	AI.N-RN.A.1, AI.N-RN.A.2	2, 5, 6	Environmental Scientists and Specialists 1-2
	A2a-1.8	Scientific Notation	Exploration	AI.N-RN.A.2	1, 4, 7, 8	Multiple 1-2
2. LINEAR FUNCTIONS AND GRAPHS						4-6
	A2a-2.1	Function Notation	Exploration	AII.F-BF.B.4.a	1, 3, 6, 7	Multiple 1-2
	A2a-2.2	Functions, Relations, and Inverses	Exploration	AII.F-BF.B.4.a, AII.F-IF.B.5	1, 7, 8	Multiple 1
S	A2a-2.3	Slope, Intercepts, and Linear Graphs	Exploration	AII.A-CED.A.2, AII.F-IF.B.4, AII.F-IF.B.6	4, 6, 7	Multiple 1
S	A2a-2.4	Applying Slope, Intercepts, and Linear Graphs	Application	AII.A-CED.A.2, AII.F-IF.B.4, AII.F-IF.B.6, AII.F-IF.C.9	1, 2, 7	Secondary School Teachers 1-2
S	A2a-2.5	Writing Linear Equations	Exploration	AII.A-CED.A.2, AII.A-CED.A.3	4, 6, 7	Multiple 1
S	A2a-2.6	Applying Writing Linear Equations	Application	AII.A-CED.A.2, AII.A-CED.A.3, AII.F-IF.B.6	1, 2, 4	Civil Engineering Technicians 1-2
S	A2a-2.7	Parallel & Perpendicular Lines	Exploration	AII.A-CED.A.2	1, 6, 8	Multiple 1

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	Title	Type	Standard(s)	Mathematical Practices	Career(s)	Number of Days	
S	A2a-2.8	Applying Parallel & Perpendicular Lines	Application	All.A-CED.A.2	1, 2, 5	Producers	1-2
	A2a-2.9	Inequalities and Their Graphs	Exploration	All.A-CED.A.2, All.A-CED.A.3, All.F-IF.B.4	3, 4, 7, 8	Multiple	1-2
	A2a-2.10	Compound Inequalities	Exploration	All.A-CED.A.1	6, 7, 8	Multiple	1
3. LINEAR SYSTEMS OF EQUATIONS							5-9
S	A2a-3.1	Solving Linear Systems of Two Equations	Exploration	All.A-CED.A.2, All.A-CED.A.3, All.F-IF.B.4	1, 5, 6	Multiple	1
	A2a-3.2	Solving Linear Systems of Three Equations	Exploration	All.A-CED.A.2, All.A-CED.A.3, All.F-IF.B.4	1, 4, 8	Multiple	1-2
	A2a-3.3	Applying Solving Linear Systems of Three Equations	Application	All.A-CED.A.2, All.A-CED.A.3, All.F-IF.B.4	1, 2, 5	Information Security Analysts	1-2
	A2a-3.4	Using Systems of Linear Equations	Exploration	All.A-CED.A.2, All.A-CED.A.3, All.F-IF.B.4	1, 4, 6	Multiple	1
	A2a-3.5	Systems of Two Linear Inequalities	Exploration	All.A-CED.A.1, All.A-CED.A.2, All.A-CED.A.3, All.F-IF.B.4	1, 4, 5	Multiple	1-2
	A2a-3.6	Applying Systems of Two Linear Inequalities	Application	All.A-CED.A.1, All.A-CED.A.2, All.A-CED.A.3, All.F-IF.B.4	1, 4, 5	Interior Designers	1-2
E	A2a-3.7	Using Systems of Inequalities to Find the Feasible Region	Application	All.A-CED.A.1, All.A-CED.A.2, All.A-CED.A.3, All.F-IF.B.4	1, 2, 4	Computer Network Specialists	2-3
4. MATRICES							7-14
	A2a-4.1	Matrices and Systems of Equations	Exploration	All.N-VM.C.6	1, 3, 4	Multiple	1-2
	A2a-4.2	Matrix Operations	Exploration	All.N-VM.C.8	1, 2, 4, 7	Multiple	1-2
	A2a-4.3	Matrix Multiplication	Exploration	All.N-VM.C.8	1, 4, 5	Multiple	1-2
	A2a-4.4	Applying Matrix Multiplication	Application	All.N-VM.C.8	1, 2, 7	Bioinformatics Scientists	1-2
	A2a-4.5	Determinants and Cramer's Rule	Exploration	All.N-VM.C.12	1, 4, 5	Multiple	1-2

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	A2a-4.6	Inverse Matrices	Exploration	All.N-VM.C.8	1, 3, 4, 7	Multiple 1-2
	A2a-4.7	Applying Inverse Matrices	Application	All.N-VM.C.12	1, 2, 5	Aircraft Mechanics and Service Technicians 1-2
P	A2a-4-P	Vector & Matrix Quantities	Project (Information Technology)	All.N-VM.C.6, All.N-VM.C.8	3, 5, 7, 8	Web Administrators 3-6
5. QUADRATIC FUNCTIONS						11-17
	A2a-5.1	Graphing in Vertex Form	Exploration	All.A-CED.A.2, All.A-SSE.A.1.a, All.A-SSE.A.1.b, All.A-SSE.A.2, All.F-IF.B.4	3, 7, 8	Multiple 1
	A2a-5.2	Graphing in Standard Form	Exploration	All.A-CED.A.2, All.A-SSE.A.1.a, All.A-SSE.A.1.b, All.A-SSE.A.2	2, 6, 7, 8	Multiple 1-2
	A2a-5.3	Applying Graphing in Standard Form	Application	All.A-CED.A.2, All.A-SSE.A.2	2, 4, 5	Tool and Die Makers 1-2
	A2a-5.4	Finding Zeros Using the Quadratic Formula	Exploration	All.A-APR.B.3, All.F-IF.B.4	1, 7, 8	Multiple 1-2
	A2a-5.5	Applying Properties of Quadratics	Application	All.A-APR.B.3, All.A-CED.A.1, All.A-CED.A.3	2, 4, 5	Structural Iron and Steel Workers 1-2
	A2a-5.6	Solving Quadratic Functions by Factoring	Exploration	All.A-SSE.A.2	2, 7	Multiple 1-2
	A2a-5.7	Solving Quadratic Functions Using Square Roots	Exploration	All.F-IF.C.8.a, All.N-CN.C.9	1, 6, 7	Multiple 1-2
	A2a-5.8	Applying Solving Quadratic Functions Using Square Roots	Application	All.F-IF.C.8.a	1, 4, 5	Airfield Operations Specialists 2
	A2a-5.9	Solving Quadratic Inequalities in Two Variables	Application	All.A-CED.A.1, All.A-CED.A.2, All.A-CED.A.3, All.F-IF.B.4	1, 2, 4	Sales Managers 2
6. ABSOLUTE VALUE AND PIECEWISE FUNCTIONS						7-13

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A2a-6.1	Graphing Absolute Value Functions	Exploration	All.A-REI.D.11, All.A-SSE.A.1.a, All.A-SSE.A.1.b	1, 4, 6, 7	Multiple	1
A2a-6.2	Composite Functions	Exploration	All.F-BF.A.1.b	1, 4, 8	Multiple	1-2
A2a-6.3	Applying Composite Functions	Application	All.F-BF.A.1.b	2, 3, 5	Audio and Video Technicians	1-2
A2a-6.4	Graphing Absolute Value Inequalities	Exploration	All.A-SSE.A.1.a, All.A-SSE.A.1.b	1, 4, 6, 7	Multiple	1-2
A2a-6.5	Applying Graphing Absolute Value Inequalities	Application	All.A-CED.A.1, All.A-CED.A.2, All.A-SSE.A.1.a, All.A-SSE.A.1.b, All.F-IF.B.4	4, 5, 6	Power Plant Operators	1-2
A2a-6.6	Piecewise Functions	Exploration	All.F-IF.C.7.b	1, 4, 6, 7	Multiple	1-2
A2a-6.7	Applying Piecewise Functions	Application	All.F-IF.C.7.b	1, 3, 4	Film and Video Editors	1-2
7. POLYNOMIAL FUNCTIONS						9-12
A2a-7.1	Intro to Polynomials	Exploration	All.A-APR.A.1.a, All.F-IF.B.4	4, 5, 6	Multiple	1
A2a-7.2	Long Division, the Factor Theorem, and the Remainder Theorem	Exploration	All.A-APR.A.1.a, All.A-APR.D.6, All.A-SSE.A.2	4, 7, 8	Multiple	1-2
A2a-7.3	Synthetic Division	Exploration	All.A-APR.A.1.a, All.A-APR.B.2, All.A-APR.D.6	7, 8	Multiple	1-2
A2a-7.4	Applying Polynomial Division	Application	All.A-APR.A.1.a, All.A-APR.B.2, All.A-APR.D.6, All.A-SSE.A.2, All.N-CN.C.8	5, 6, 7	Chemical Engineers	2
A2a-7.5	Solving Polynomial Equations by Factoring	Exploration	All.A-APR.A.1.a, All.A-APR.B.2, All.A-APR.B.3, All.N-CN.C.8	1, 2, 3, 5, 7	Multiple	1
A2a-7.6	Graphs of Polynomial Functions	Exploration	All.A-REI.D.11, All.F-IF.C.7.c, All.F-IF.C.9	1, 3, 4, 5	Multiple	1-2
A2a-7.7	Applying Graphs of Polynomial Functions	Application	All.F-IF.C.7.c, All.F-IF.C.9	1, 4, 5	Electrical Engineers	2
8. RADICAL FUNCTIONS AND RATIONAL EXPONENTS						8-12
A2a-8.1	Roots	Exploration	All.N-RN.A.2	2, 6, 8	Multiple	1

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A2a-8.2	Properties of Rational Exponents	Exploration	AI.N-RN.A.1, AI.N-RN.A.2	1, 2, 6, 8	Multiple	1-2
A2a-8.3	Composite Functions	Exploration	AI.F-BF.A.1.b, AI.F-BF.B.3	2, 6, 8	Multiple	1-2
A2a-8.4	Applying Composite Functions	Application	AI.F-BF.A.1.b, AI.F-BF.B.3	2, 7, 8	Materials Engineer	1-2
A2a-8.5	Graphing Radical Functions	Exploration	AI.F-IF.C.7.b	2, 7, 8	Multiple	1
A2a-8.6	Solving Radical Equations	Exploration	AI.A-REI.A.2	1, 2	Multiple	1-2
A2a-8.7	Applying Radical Functions	Application	AI.A-REI.A.2	1, 2, 4, 5, 7	Electrical and Electronics Drafters	2
9. DISCRETE MATH AND COMBINATORICS						4-8
S A2a-9.1	Counting, Permutations, and Combinations	Exploration	GEO.S-CP.B.9	1, 2, 5	Multiple	1
A2a-9.2	Probability and Compound Probability	Exploration	GEO.S-CP.A.1, GEO.S-CP.A.2, GEO.S-CP.A.3, GEO.S-CP.A.4, GEO.S-CP.A.5, GEO.S-CP.B.6, GEO.S-CP.B.8, GEO.S-CP.B.9	1, 5, 7	Multiple	1-2
A2a-9.3	Discrete Probability	Exploration	AI.S-MD.B.6	1, 2, 8	Multiple	1-2
A2a-9.4	Applying Discrete Probability	Application	AI.S-MD.B.6, AI.S-MD.B.7	1, 4, 6	Heavy and Tractor-Trailer Truck Drivers	1-2
A2a-9.5	The Binomial Theorem	Exploration	AI.A-APR.C.4, AI.A-APR.C.5	2, 6, 7	Multiple	1-2
E A2a-9.6	The Traveling Salesperson Problem	Exploration	AI.S-MD.B.7	1, 2, 4, 7	Multiple	2-3
E A2a-9.7	Optimal Solutions	Exploration	AI.S-IC.B.6	1, 2, 4	Multiple	2
10. DATA						5-8
S A2a-10.1	Measures of Central Tendency	Exploration	AI.S-ID.A.2	3, 5, 6, 7	Multiple	1
S A2a-10.2	Measures of Variation	Exploration	AI.F-IF.B.6, AI.S-ID.A.4	5, 6, 7	Multiple	1

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	A2a-10.3	The Normal Distribution	Exploration	All.S-ID.A.4	1, 3, 5, 8	Multiple	1-2
	A2a-10.4	Applying the Normal Distribution	Application	All.S-IC.A.1, All.S-IC.B.4, All.S-ID.A.4	1, 2, 4, 5, 6	Nurse Practitioners	2
	A2a-10.5	Randomness and Bias	Exploration	All.S-IC.A.1, All.S-IC.A.2, All.S-IC.B.3, All.S-IC.B.4	1, 3, 8	Multiple	1-2
	A2a-10.6	Applying Randomness and Bias	Application	All.S-IC.A.1, All.S-IC.A.2, All.S-IC.B.4	1, 2, 4	Lodging Managers	1-2
E	A2a-10.7	Hypotheses	Exploration	All.S-IC.A.2, All.S-IC.B.3, All.S-IC.B.5, All.S-IC.B.6	1, 3, 5	Multiple	2
E	A2a-10.8	Applying Hypotheses	Application	All.S-IC.A.2, All.S-IC.B.3, All.S-IC.B.5, All.S-IC.B.6	1, 6, 7	Accountants and Auditors	2-3
1. RATIONAL FUNCTIONS						9-13	
	A2b-1.1	Multiplying and Dividing Rational Expressions	Exploration	All.A-APR.D.6, All.A-APR.D.7	1, 3, 6, 8	Multiple	1
	A2b-1.2	Adding and Subtracting Rational Expressions	Exploration	All.A-APR.D.6, All.A-APR.D.7	1, 4, 6	Multiple	1-2
	A2b-1.3	Solving Rational Equations	Exploration	All.A-REI.A.2	1, 2, 5, 6	Multiple	1-2
	A2b-1.4	Applying Solving Rational Equations	Application	All.A-CED.A.1, All.A-CED.A.3, All.A-REI.A.2	1, 2, 4	Respiratory Therapists	2
	A2b-1.5	Using Polynomial Division to Solve Rational Equations	Exploration	All.A-APR.A.1.a	1, 2, 4, 6	Multiple	1-2
	A2b-1.6	Applying Using Polynomial Division to Solve Rational Equations	Application	All.A-APR.A.1.a	1, 2, 3, 4	Budget Analysts	2
	A2b-1.7	Graphing Rational Functions	Exploration	All.A-REI.D.11, All.F-BF.B.3	1, 7, 8	Multiple	1-2
2. CONIC SECTIONS						8-14	
	A2b-2.1	Parabolas	Exploration	All.A-CED.A.2	1, 2, 6	Multiple	1-2

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	Title	Type	Standard(s)	Mathematical Practices	Career(s)	Number of Days
A2b-2.2	Circles	Exploration	GEO.G-GPE.A.1	1, 6, 7	Multiple	1-2
A2b-2.3	Ellipses	Exploration	PC.G-GPE.A.3.a	1, 2, 7	Multiple	1-2
A2b-2.4	Hyperbolas	Exploration	PC.G-GPE.A.3.a	1, 2, 7	Multiple	1-2
A2b-2.5	Applying Conic Sections	Application	AII.F-IF.C.9	1, 4, 7	Solar Photovoltaic Installers	2
A2b-2.6	Translating Conics	Exploration	AII.F-BF.B.3	2, 7, 8	Multiple	1-2
A2b-2.7	Applying Translating Conics	Application	AII.F-BF.B.3	2, 4, 7	Museum Technicians and Conservators	1-2
3. COMPLEX NUMBERS						9-17
A2b-3.1	Properties of Complex Numbers	Exploration	AII.N-CN.A.2	6, 7, 8	Multiple	1-2
A2b-3.2	Operations with Complex Numbers	Exploration	AII.N-CN.A.1, AII.N-CN.A.2	1, 3, 8	Multiple	1-2
A2b-3.3	Applying Operations with Complex Numbers	Application	AII.N-CN.A.1, AII.N-CN.A.2	2, 4, 6	Mathematicians	1-2
A2b-3.4	Completing the Square Using Complex Numbers	Exploration	AII.F-IF.C.8.a, AII.N-CN.C.7, AII.N-CN.C.8, AII.N-CN.C.9	2, 6, 8	Multiple	1-2
A2b-3.5	Graphing in the Complex Plane	Exploration	AII.N-CN.A.1	1, 2, 5	Multiple	1-2
A2b-3.6	Applying Moduli and Arguments	Application	AII.N-CN.A.2	1, 4, 6, 7	Electricians	1
A2b-3.7	Distance and Midpoint	Exploration	AII.N-CN.A.2	2, 8	Multiple	1-2
A2b-3.8	Using Notation with Complex Numbers	Exploration	AII.N-CN.A.2	1, 6, 8	Multiple	1-2
A2b-3.9	Applying Using Notation with Complex Numbers	Application	AII.N-CN.A.2	2, 4, 5	Electronics Engineers	1-2
4. EXPONENTIAL AND LOGARITHMIC FUNCTIONS						10-16

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A2b-4.1	Exponential Growth and Decay	Exploration	All.A-CED.A.1, All.A-CED.A.3, All.A-REI.D.11, All.F-BF.B.4.a, All.F-LE.A.4	2, 4, 7	Multiple	1-2
A2b-4.2	Applying Exponential Growth and Decay	Application	All.A-CED.A.1, All.A-CED.A.3, All.F-LE.A.4	1, 2, 4, 7	Microbiologists	1-2
A2b-4.3	The Number e	Exploration	All.F-BF.B.4.a	2, 4, 7	Multiple	1-2
A2b-4.4	Logarithms	Exploration	All.A-REI.D.11, All.F-IF.C.7.e	1, 2, 4, 6	Multiple	1-2
A2b-4.5	Properties of Logarithmic Functions	Exploration	All.F-BF.B.4.a, All.F-LE.A.4	2, 4, 6, 8	Multiple	1-2
A2b-4.6	Applying Properties of Logarithmic Functions	Application	All.F-BF.B.4.a	2, 4, 6	Obstetricians	2
A2b-4.7	Solving Exponential and Logarithmic Equations	Exploration	All.A-REI.D.11	2, 4, 6	Multiple	1-2
A2b-4.8	Applying Solving Exponential and Logarithmic Equations	Application	All.F-LE.A.4	1, 2, 4, 6	Environmental Scientists and Specialists, Including Health	2
P A2b-4-P	Building Functions	Project (Information Technology)	All.F-BF.B.4.a, All.F-IF.C.10	1, 2, 4, 6	Software Quality Assurance Analysts and Testers	3-6
5. TRIGONOMETRY						8-15
S A2b-5.1	Sine, Cosine, and Tangent in Right Triangles	Exploration	GEO.G-SRT.C.6, GEO.G-SRT.C.7, GEO.G-SRT.C.8	2, 4, 6, 7	Multiple	1
A2b-5.2	Inverse Sine, Cosine, and Tangent in Right Triangles	Exploration	GEO.G-SRT.C.6, GEO.G-SRT.C.7, GEO.G-SRT.C.8	2, 4, 6, 7	Multiple	1
S A2b-5.3	The Law of Sines and the Law of Cosines	Exploration	GEO.G-SRT.D.10, GEO.G-SRT.D.11	1, 6, 7, 8	Multiple	1-2
A2b-5.4	Solving Triangles	Exploration	GEO.G-SRT.D.9, GEO.G-SRT.D.10, GEO.G-SRT.D.11	1, 2, 4, 5, 6	Multiple	1-2

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A2b-5.5	Applying Solving Triangles	Application	GEO.G-SRT.C.6, GEO.G-SRT.C.8	2, 4, 5	Machinists	1-2
A2b-5.6	More Applying Solving Triangles	Application	GEO.G-SRT.C.6, GEO.G-SRT.C.8	1, 3, 5	Welders, Cutters, Solderers, and Brazers	1-2
A2b-5.7	Radians	Exploration	All.F-TF.A.1	2, 6, 8	Multiple	1-2
A2b-5.8	The Unit Circle	Exploration	All.F-TF.A.2	4, 5, 6, 8	Multiple	1-2
A2b-5.9	Using the Unit Circle	Exploration	All.F-TF.A.2	4, 5, 7	Multiple	1-2
A2b-5.10	Applying the Unit Circle	Application	All.F-TF.A.2	1, 2, 5	Web and Digital Interface Designers	1-2
6. VECTORS						6-11
A2b-6.1	Magnitude and Direction of Vectors	Exploration	All.N-VM.A.1, All.N-VM.A.3	1, 3, 6, 7	Multiple	1
A2b-6.2	Applying Magnitude and Direction of Vectors	Application	All.N-VM.A.1, All.N-VM.A.3	1, 4, 5	Traffic Technicians	1-2
A2b-6.3	Vector Components	Exploration	All.N-VM.A.1, All.N-VM.A.3	4, 6, 7	Multiple	1-2
A2b-6.4	Operations with Vectors	Exploration	All.N-VM.A.1, All.N-VM.A.3	1, 4, 5	Multiple	1-2
A2b-6.5	Scalars	Exploration	All.N-VM.A.1, All.N-VM.A.3	2, 6, 7	Multiple	1-2
A2b-6.6	Applying Scalars	Application	All.N-VM.A.1, All.N-VM.A.3	2, 4, 6	Logisticians	1-2
7. TRIG IDENTITIES AND TRIG EQUATIONS						7-12
A2b-7.1	Intro to Trigonometric Identities	Exploration	All.F-TF.C.8	1, 2, 8	Multiple	1-2
A2b-7.2	Sum and Difference Identities	Exploration	GEO.G-SRT.C.7	1, 2, 8	Multiple	1-2
A2b-7.3	Angle Identities	Exploration	GEO.G-SRT.C.7	1, 2, 4, 6	Multiple	1-2
A2b-7.4	Proof of the Identities	Exploration	All.F-TF.C.8	3, 6, 8	Multiple	1-2
A2b-7.5	Trigonometric Equations	Exploration	All.F-IF.C.7.e, All.F-TF.B.5	6, 8	Multiple	1-2

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	Title	Type	Standard(s)	Mathematical Practices	Career(s)	Number of Days
A2b-7.6	Applying Trigonometric Equations	Application	All.F-IF.C.7.e, All.F-TF.B.5	1, 2, 5	Diagnostic Medical Sonographers	2
8. SERIES AND SEQUENCES						6-9
A2b-8.1	Defining Series and Sequences	Exploration	All.A-SSE.B.4	1, 2, 3, 6, 8	Multiple	1
A2b-8.2	Arithmetic Series and Sequences	Exploration	All.A-CED.A.2, All.A-CED.A.3	1, 2, 3, 5, 7	Multiple	1
A2b-8.3	Applying Arithmetic Series and Sequences	Application	All.A-CED.A.2, All.A-CED.A.3, All.A-SSE.B.4	1, 7, 8	Library Technicians	1-2
A2b-8.4	Geometric Series and Sequences	Exploration	All.A-CED.A.1, All.A-CED.A.3, All.F-LE.A.4	1, 2, 4, 7	Multiple	1
A2b-8.5	Applying Geometric Series and Sequences	Application	All.A-CED.A.1, All.A-CED.A.3, All.A-SSE.B.4, All.F-LE.A.4	3, 7, 8	Agricultural Technicians	1-2
A2b-8.6	Infinite Geometric Series	Exploration	All.A-SSE.B.4	1, 2, 3, 5, 7	Multiple	1-2
EXTENSION OPPORTUNITIES:						17-34
9. BINARY AND HEXADECIMAL NUMBERS						4-8
E A2b-9.1	Binary Codes	Exploration	NCTM PS: Communication, Connections	1, 2, 4, 8	Multiple	1-2
E A2b-9.2	Binary Numbers	Exploration	NCTM PS: Connections, Representation	1, 2, 4, 8	Multiple	1-2
E A2b-9.3	Bits, Bytes, and Hexadecimal Numbers	Exploration	NCTM PS: Connections, Representation	1, 2, 4, 8	Multiple	1-2
E A2b-9.4	Applying Bits, Bytes, and Hexadecimal Numbers	Application	NCTM PS: Connections, Representation	1, 2, 4, 8	Data Administrators	1-2
10. TOPOLOGY						5-10
E A2b-10.1	Topology and Topological Equivalence	Exploration	NCTM PS: Reasoning and Proof, Communication	2, 4, 7	Multiple	1-2

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E	A2b-10.2	Mobius Strips	Exploration	NCTM PS: Connections, Representation	7, 8	Multiple	1-2
E	A2b-10.3	Properties of a Torus	Exploration	NCTM PS: Reasoning and Proof, Communication	7, 8	Multiple	1-2
E	A2b-10.4	Topological Properties	Exploration	NCTM PS: Communication, Connections, Representation	2, 7, 8	Multiple	1-2
E	A2b-10.5	Applying Topological Properties	Application	NCTM PS: Communication, Connections, Representation	3, 7, 8	Industrial Machinery Mechanics	1-2
11. Logic							8-16
E	A2b-11.1	Critical Thinking	Exploration	NCTM PS: Problem Solving, Reasoning and Proof	1, 2, 3, 7, 8	Multiple	1-2
E	A2b-11.2	An Introduction to Election Theory	Application	NCTM PS: Problem Solving, Reasoning and Proof	3, 4, 6, 7	Public Relations Specialists	1-2
E	A2b-11.3	Applying Critical Thinking	Application	NCTM PS: Problem Solving, Reasoning and Proof	1, 3, 8	Educational, Guidance and Career Counselors and Advisors	1-2
E	A2b-11.4	Sudoku and the Art of Deduction	Exploration	NCTM PS: Problem Solving, Connections	1, 3, 7, 8	Multiple	1-2
E	A2b-11.5	Logic Puzzles-Applying Deduction	Exploration	NCTM PS: Problem Solving, Reasoning and Proof	1, 3, 7, 8	Multiple	1-2
E	A2b-11.6	Cryptography	Exploration	NCTM PS: Problem Solving, Representation	1, 5, 7, 8	Multiple	1-2
E	A2b-11.7	Applying Cryptography	Application	NCTM PS: Problem Solving, Representation	2, 7, 8	Natural Sciences Managers	1-2
E	A2b-11.8	RSA Encryption	Exploration	NCTM PS: Problem Solving, Representation	2, 4, 7, 8	Multiple	1-2

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