



PATHWAY **2** CAREERS

P2C Math Crosswalk

Illustrative Math Traditional
McGraw Hill 8th Grade Math

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UNIT 1: RIGID TRANSFORMATIONS AND CONGRUENCE				
P2C	Lesson #	Title	Standard(s)	Career
RIGID TRANSFORMATIONS				
	1	Moving in the Plane	8.G.1	NA
	2	Naming the Moves	8.G.1	NA
	3	Grid Moves	8.G.1	NA
	4	Making the Moves	8.G.1	NA
	5	Coordinate Moves	8.G.3	NA
	6	Describing Transformations	8.G.1 8.G.3	NA
Pre-Algebra	1.2	Apply Translations	8.G.3	Computer Numerically Controlled Tool Programmers
Pre-Algebra	1.4	Apply Reflections	8.G.3	Automotive Engineer
PROPERTIES OF RIGID TRANSFORMATIONS				
	7	No Bending or Stretching	8.G.1.a 8.G.1.b	NA
	8	Rotation Pattern	8.G.1.a 8.G.1.b 8.G.1.c	NA
Pre-Algebra	1.6	Apply Rotations	8.G.3	Aerospace Engineering and Operations Technologists and Technicians
	9	Moves in Parallel	8.G.1.a 8.G.1.b 8.G.1.c	NA
	10	Composing Figures	8.G.1.a 8.G.1.b	NA
CONGRUENCE				
	11	What Is the Same?	8.G.A. 8.G.2	NA
	12	Congruent Polygons	8.G.2	NA
	13	Congruence	8.G.1.a 8.G.2	NA
Pre-Algebra	1.9	Use Rigid Motions to Show Congruent Figures	8.G.2	Special Effects Artists and Animators
ANGLES IN A TRIANGLE				
	14	Alternate Interior Angles	8.G.1 8.G.5	NA
	15	Adding the Angles in a Triangle	8.G.2 8.G.5	NA
	16	Parallel Lines and the Angles in a Triangle	8.G.5 8.G.6	NA
Pre-Algebra	3.2	Apply Properties of Parallel Lines	8.G.5	Structural Iron and Steel Workers
Pre-Algebra	3.4	Apply Angle Relationships in Triangles	8.G.5	Robotics Engineer
LET'S PUT IT TO WORK				
	17	Rotate and Tessellate	8.G.	NA
Pre-Algebra	1.7	Investigate Symmetry	preparing for 8.G.2	NA



UNIT 2: DILATIONS, SIMILARITY, AND INTRODUCING SLOPE

P2C	Lesson #	Title	Standard(s)	Career
DILATIONS				
	1	Projecting and Scaling	8.G.	NA
	2	Circular Grid	8.G.	NA
	3	Dilations with No Grid	8.G.	NA
	4	Dilations on a Square Grid	8.G. 8.G.3	NA
	5	More Dilations	8.G. 8.G.3	NA
Pre-Algebra	1.11	Apply Dilations	8.G.3	Interior Designers
SIMILARITY				
	6	Similarity	8.G.2 8.G.4	NA
	7	Similar Polygons	8.G.2 8.G.4	NA
	8	Similar Triangles	8.G.A 8.G.5	NA
Pre-Algebra	3.6	Apply Similar Triangles	8.G.5	Firefighters
	9	Side Length Quotients in Similar Triangles	8.G. 8.G.4	NA
Pre-Algebra	3-P	Geometry	8.G.1 8.G.2 8.G.3 8.G.4 8.G.5 8.G.6	Web and Digital Interface Designers
SLOPE				
	10	Meet Slope	8.EE.6	NA
	11	Writing Equations for Lines	8.EE.6 8.G.	NA
	12	Using Equations for Lines	8.EE.6 8.G.A 8.G.3	NA
LET'S PUT IT TO WORK				
	13	The Shadow Knows	8.G.5	NA

UNIT 3: LINEAR RELATIONSHIPS

P2C	Lesson #	Title	Standard(s)	Career
PROPORTIONAL RELATIONSHIPS				
	1	Understanding Proportional Relationships	8.EE. 8.EE.5	NA
Pre-Algebra	4.6	Apply Equations for Proportional Relationships	8.EE.6	Food Scientists and Technologists
	2	Graphs of Proportional Relationships	8.EE.B 8.EE.5	NA
Pre-Algebra	4.9	Apply Graphs of Proportional Relationships	8.EE.5	Manufacturing Engineers
	3	Representing Proportional Relationships	8.EE. 8.EE.5	NA
	4	Comparing Proportional Relationships	8.EE. 8.EE.5	NA
Pre-Algebra	4.11	Apply Comparisons of Proportional Relationships	8.EE.5	Biological Science Teachers, Postsecondary
REPRESENTING LINEAR RELATIONSHIPS				
	5	Introduction to Linear Relationships	8.EE	NA
	6	More Linear Relationships	8.EE. 8.EE.5	NA
	7	Representations of Linear Relationships	8.EE. 8.EE.6	NA
	8	Translating $y = mx + b$	8.EE.	NA
FINDING SLOPES				
	9	Slopes Don't Have to be Positive	8.EE.	NA
	10	Calculating Slope	8.EE. 8.EE.6	NA
Pre-Algebra	4.4	Use the Slope of a Line	8.EE.6	Surveyors
	11	Equations of All Kinds of Lines	8.EE.B, 8.EE.B.6	NA
LINEAR EQUATIONS				
	12	Solutions to Linear Equations	8.EE.	NA
	13	More Solutions to Linear Equations	8.EE 8.EE.8.a	NA
LET'S PUT IT TO WORK				
	14	Using Linear Relations to Solve Problems	8.EE.6 8.EE.8.a	NA



UNIT 4: LINEAR EQUATIONS AND LINEAR SYSTEMS

P2C	Lesson #	Title	Standard(s)	Career
PUZZLE PROBLEMS				
	1	Number Puzzle	8.EE.C.7	
LINEAR EQUATIONS IN ONE VARIABLE				
	2	Keeping the Equation Balanced	8.EE.	NA
Pre-Algebra	2.3	Variables and Equations	Lesson P-2.5	Facilities Managers
	3	Balanced Moves	8.EE 8.EE.7	NA
Pre-Algebra	2.5	Apply Solving One-Step Equations	8.EE.7.b	Cargo and Freight Agents
	4	More Balanced Moves	8.EE 8.EE.7	NA
	5	Solving Any Linear Equation	8.EE 8.EE.7	NA
Pre-Algebra	2.7	Apply Solving Two-Step Equations	8.EE.7.b	Loan Officers
	6	Strategic Solving	8.EE.7 8.EE.7.b	NA
	7	All, Some, or No Solutions	8.EE.7.a	NA
	8	How Many Solutions?	8.EE.7.a	NA
	9	When Are They the Same?	8.EE 8.EE.7 8.EE.8	NA
Pre-Algebra	2.1	Solve Break-Even Problems	8.EE.7.b	Fundraising Managers
SYSTEMS OF LINEAR EQUATIONS				
	10	On or Off the Line?	8.EE 8.EE.8	NA
	11	On Both of the Lines	8.EE.8	NA
	12	Systems of Equations	8.EE.8 8.EE.8.a 8.EE.8.b	NA
Pre-Algebra	6.2	Apply Solving Linear Equations by Graphing	8.EE.8.a 8.EE.8.c	Business Operations Specialists
	13	Solving Systems of Equations	8.EE.8 8.EE.8.a	NA
	14	Solving More Systems	8.EE.8	NA
	6.4	Apply Solving Linear Systems by Substitution	8.EE.8.b 8.EE.8.c	Credit Counselors
	15	Writing Systems of Equations	8.EE.8 8.EE.8.b 8.EE.8.c	NA
Pre-Algebra	6.8	Solve Manufacturing Tolerance Problems	8.EE.8.b 8.EE.8.c	Ophthalmic Laboratory Technicians
Pre-Algebra	6.9	Solve Mixture Problems	8.EE.8.b 8.EE.8.c	Chemists
LET'S PUT IT TO WORK				
	16	Solving Problems with Systems of Equations	8.EE.8.c	NA
Pre-Algebra	6-P	Expressions and Equations	8.EE.8.a 8.EE.8.b 8.EE.8.c	Information Security Analysts

**UNIT 5: FUNCTIONS AND VOLUME**

P2C	Lesson #	Title	Standard(s)	Career
INPUTS AND OUTPUTS				
	1	Inputs and Outputs	8.F.1	NA
	2	Introduction to Functions	8.F.1	NA
REPRESENTING AND INTERPRETING FUNCTIONS				
	3	Equations for Functions	8.F.A 8.F.1 8.F.4	NA
Pre-Algebra	5.4	Apply Linear Equations With Two Variables	8.F.4	Dental Hygienists
	4	Tables, Equations, and Graphs of Functions	8.F.1 8.F.3	NA
	5	More Graphs of Functions	8.F.1 8.F.B 8.F.5	NA
	6	Even More Graphs of Functions	8.F.5	NA
Pre-Algebra	5.11	Interpret Intercepts of Graphs of Linear Equations	8.F.1 8.F.4	Athletic Trainer
	7	Connecting Representations of Functions	8.F.2 8.F.3	NA
LINEAR FUNCTIONS AND RATES OF CHANGE				
	8	Linear Functions	8.F.2 8.F.3 8.F.4	NA
Pre-Algebra	5.6	Apply Rate of Change and Initial Value	8.F.4 8.SP.3	Soil and Plant Scientists
	9	Linear Models	8.F.4	NA
Pre-Algebra	5.8	Apply Equations Written for Linear Functions	8.F.4 8.SP.3	Commercial Pilot
	10	Piecewise Linear Functions	8.F.B 8.F.4 8.F.5	NA
Pre-Algebra	5.14	Apply Nonlinear Functions	8.F.5	Food Service Managers
Pre-Algebra	5-P	Functions	8.F.4 8.SP.3	Information Technology Project Managers



P2C	Lesson #	Title	Standard(s)	Career
CYLINDERS AND CONES				
	11	Filling Containers	8.F.B 8.F.4 8.G.	NA
	12	How Much Will Fit?	8.G.	NA
	13	The Volume of a Cylinder	8.G.9	NA
	14	Finding Cylinder Dimensions	8.G.9	NA
Pre-Algebra	10.4	Apply Volume of Cylinders	8.G.9	Geological Technician
	15	The Volume of a Cone	8.G.9	NA
	16	Finding Cone Dimensions	8.G.9	NA
Pre-Algebra	10.6	Apply Volume of Cones	8.G.9	Chefs and Head Cooks
DIMENSIONS AND SPHERES				
	17	Scaling One Dimension	8.F.1 8.F. 8.G 8.G.9	NA
	18	Scaling Two Dimensions	8.F.3 8.F.B 8.G.9	NA
	19	Estimating a Hemisphere	8.G 8.G.9	NA
	20	The Volume of a Sphere	8.G 8.G.9	NA
Pre-Algebra	10.8	Apply Volume of Spheres	8.G.9	Secondary School Science Teachers
	21	Cylinders, Cones, and Spheres	8.G.9	NA
Pre-Algebra	10.10	Apply Volume of Composite Solids	8.G.9	Mobile Heavy Equipment Mechanics
LET'S PUT IT TO WORK				
	22	Volume as a Function of . . .	8.F 8.G.9	NA

**UNIT 6: ASSOCIATIONS IN DATA**

P2C	Lesson #	Title	Standard(s)	Career
DOES THIS PREDICT THAT?				
	1	Organizing Data	8.SP.A 8.SP.1	NA
	2	Plotting Data	8.SP.1	NA
ASSOCIATIONS IN NUMERICAL DATA				
	3	What a Point in a Scatter Plot Means	8.SP.1 8.SP.3	NA
	4	Fitting a Line to Data	8.SP.1 8.SP.2	NA
	5	Describing Trends in Scatter Plots	8.SP.1 8.SP.2	NA
	6	The Slope of a Fitted Line	8.SP.1 8.SP.2 8.SP.3	NA
	7	Observing More Patterns in Scatter Plots	8.SP.1	NA
Pre-Algebra	7.2	Apply Scatter Plots	8.SP.1	Medical Scientists, Except Epidemiologists
	8	Analyzing Bivariate Data	8.SP.1 8.SP.2 8.SP.3	NA
Pre-Algebra	7.5	Apply Trend Lines	8.SP.1 8.SP.2 8.SP.3	Paralegals and Legal Assistants
ASSOCIATIONS IN CATEGORICAL DATA				
	9	Looking for Associations	8.SP.4	NA
	10	Using Data Displays to Find Associations	8.SP.4	NA
Pre-Algebra	7.9	Apply Two-Way Frequency Tables	8.SP.4	Health Education Specialists
Pre-Algebra	7.11	Apply Two-Way Relative Frequency Tables	8.SP.4	Operations Research Analysts
LET'S PUT IT TO WORK				
	11	Gone in 30 Seconds	8.SP.	NA
Pre-Algebra	7-P	Statistics and Probability	8.SP.1 8.SP.2 8.SP.3 8.SP.4	Computer User Support specialists



UNIT 7: EXPONENTS AND SCIENTIFIC NOTATION				
P2C	Lesson #	Title	Standard(s)	Career
EXPONENT REVIEW				
	1	Exponent Review	8.EE.1	NA
EXPONENT RULES				
	2	Multiplying Powers of 10	8.EE.1 8.EE.3 8.EE.4	NA
	3	Powers of Powers of 10	8.EE.1 8.EE.3 8.EE.4	NA
	4	Dividing Powers of 10	8.EE.1	NA
	5	Negative Exponents with Powers of 10	8.EE.1	NA
	6	What about Other Bases?	8.EE.1	NA
	7	Practice with Rational Bases	8.EE.1	NA
Pre-Algebra	8.5	Apply Properties of Exponents in Software Development	8.EE.1	Software Developers
Pre-Algebra	8.6	Apply Properties of Exponents Using Orders of Magnitude	8.EE.1	Atmospheric, Earth, Marine and Space Sciences Teachers, Postsecondary
Pre-Algebra	8.7	Apply Properties of Exponents in Ecology	8.EE.1	Industrial Ecologists
	8	Combining Bases	8.EE.1	NA
SCIENTIFIC NOTATION				
	9	Describing Large and Small Numbers Using Powers of 10	8.EE.3 8.EE.4	NA
	10	Representing Large Numbers on the Number Line	8.EE.3 8.EE.4	NA
	11	Representing Small Numbers on the Number Line	8.EE.1 8.EE.3 8.EE.4	NA
	12	Applications of Arithmetic with Powers of 10	8.EE.1 8.EE.3 8.EE.4	NA
	13	Definition of Scientific Notation	8.EE.1 8.EE.3 8.EE.4	NA
	14	Estimating with Scientific Notation	8.EE.1 8.EE.3 8.EE.4	NA
Pre-Algebra	8.10	Apply Scientific Notation in Earth Science	8.EE.4	Geoscientists
	15	Adding and Subtracting with Scientific Notation	8.EE.4	NA
Pre-Algebra	8.11	Apply Scientific Notation in Forensic Science	8.EE.4	Forensic Science Teachers
LET'S PUT IT TO WORK				
	16	Is a Smartphone Smart Enough to Go to the Moon?	8.EE.3 8.EE.4	NA

**UNIT 8: PYTHAGOREAN THEOREM AND IRRATIONAL NUMBERS**

P2C	Lesson #	Title	Standard(s)	Career
SIDE LENGTHS AND AREAS OF SQUARES				
	1	The Areas of Squares and their Side Lengths	8.EE.A.2, 8.G.B, 8.G.B.6, 8.NS.A.2	NA
	2	Side Lengths and Areas	8.EE.A.2, 8.F.B, 8.NS.A	NA
	3	Rational and Irrational Numbers	8.EE.A.2, 8.F.B	NA
	4	Square Roots on the Number Line	8.EE.A.2, 8.NS.A, 8.NS.A.2	NA
	5	Reasoning about Square Roots	8.EE.A.2, 8.NS.A.2	NA
Pre-Algebra	9.2	Apply Finding Square Roots	8.EE.2	Landscape Architects
THE PYTHAGOREAN THEOREM				
	6	Finding Side Lengths of Triangles	8.G.B 8.G.6 8.G.7	NA
	7	A Proof of the Pythagorean Theorem	8.G.B 8.G.6 8.G.7	NA
	8	Finding Unknown Side Lengths	8.G.B 8.G.7	NA
	9	The Converse	8.G.B 8.G.6	NA
Pre-Algebra	9.10	Apply the Converse of the Pythagorean Theorem	8.G.7	Construction and Building Inspectors
	10	Applications of the Pythagorean Theorem	8.EE.2 8.G.7 8.NS.A	NA
Pre-Algebra		Apply the Pythagorean Theorem	8.G.7	Plumbers, Pipefitters, and Steamfitters
	11	Finding Distances in the Coordinate Plane	8.G.B.8	
Pre-Algebra	9.8	Finding Distances Using the Pythagorean Theorem	8.G.8	Architectural and Civil Drafters
SIDE LENGTHS AND VOLUMES OF CUBES				
	12	Edge Lengths and Volumes	8.EE.2 8.NS.2	NA
	13	Cube Roots	8.EE.2 8.NS.2	NA
DECIMAL REPRESENTATION OF RATIONAL AND IRRATIONAL NUMBERS				
	14	Decimal Representations of Rational Numbers	8.EE.A 8.NS.A 8.NS.1	NA
	15	Infinite Decimal Expansions	8.NS.1	NA
Pre-Algebra	9-P	The Number System	8.NS.1 8.NS.2	Web Developers
LET'S PUT IT TO WORK				
	16	When Is the Same Size Not the Same Size?	8.G.7	NA



UNIT 9: PUTTING IT ALL TOGETHER

P2C	Lesson #	Title	Standard(s)	Career
TESSELLATIONS				
	1	Tessellations of the Plane (optional)	8.G.A	NA
	2	Regular Tessellations (optional)	8.G.A 8.G.A.5	NA
	3	Tessellating Polygons	8.G.A	NA
THE WEATHER				
	4	What Influences Temperature?	8.F.A.1 8.F.B 8.SP.A	NA
	5	Plotting the Weather	8.SP.A	NA
	6	Using and Interpreting a Mathematical Model	8.F.B 8.SP.A	NA

SUPPLEMENTAL P2C LESSONS NOT DIRECTLY TIED TO THE ABOVE LESSONS FOR ADDITIONAL LEARNING OPPORTUNITIES

Pre-Algebra	4.2	Apply Writing and Solving Proportions	preparing for 8.EE.6	Compliance Officers
Pre-Algebra	10.2	Apply Area of Circles	preparing for 8.G.9	Market Research Analysts and Marketing Specialists



PATHWAY **2** CAREERS

P2C Math Crosswalk

Illustrative Math Traditional
McGraw Hill Geometry

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UNIT 1: CONSTRUCTIONS

P2C	Lesson #	Title	Standard(s)	Career
CONSTRUCTIONS				
	1.1	Build It	G-CO.1 G-CO.12 C-CO.13	NA
	1.2	Constructing Patterns	G-CO.1 G-CO.12 C-CO.13	NA
	1.3	Construction Techniques 1: Perpendicular Bisectors	G-CO.1 C-CO.4 G-CO.9 C-CO.12	NA
	1.4	Construction Techniques 2: Equilateral Triangles	G-CO.3 G-CO G-CO.12 G-CO.13	NA
	1.5	Construction Techniques 3: Perpendicular Lines and Angle Bisectors	G-CO.9 G-CO.12 G-CO.13	NA
	1.6	Construction Techniques 4: Parallel and Perpendicular Lines	G-CO.1 G-CO.2 G-CO.4 G-CO.12	NA
	1.7	Construction Techniques 5: Squares	G-CO.3 G-CO.13	NA
	1.8	Construction Using Technology for Constructions	G-CO.1 G-CO.12 G-CO.13	NA
	1.9	Speedy Delivery	G-CO.12 G-MG.3 N-Q.2 N-Q.3	NA
Geometry	1.7	Solve Design Problems Using Areas of Figures	G-MG.2 G-MG.3	Meeting, Convention, and Event Planners
RIGID TRANSFORMATIONS				
	1.10	Rigid Transformations	G-CO.2 G-CO.5	NA
Geometry	4.8	Compositions of Transformations	G-CO.2 G-CO.5	Computer Numerically Controlled Machine Tool Programmers
	1.11	Defining Reflections	G-CO.2 G-CO.4 G-CO.9 G-CO.10	NA
Geometry	4.4	Apply Reflections	G-CO.1 G-CO.3 G-CO.4 G-CO.5 G-CO.6 G-SRT.2	Marine Engineers and Naval Architects
	1.12	Defining Translations	G-CO.4 G-CO	NA
Geometry	4.2	Apply Translations	G-CO.1 G-CO.2 G-CO.3 G-CO.4 G-CO.5 G-CO.6 G-SRT.2	Biological Technician
	1.13	Incorporating Rotations	G-CO.1 G-CO.2 G-CO.5 G-CO.6 N-Q.3	NA
	1.14	Defining Rotations	G-CO.4 N-Q.3	NA
Geometry	4.6	Apply Rotations	G-CO.1 G-CO.2 G-CO.3 G-CO.4 G-CO.5 G-CO.6 G-SRT.2	Air Traffic Controllers
	1.15	Symmetry	G-CO.2 G-CO.3	NA
	1.16	More Symmetry	G-CO.3	NA
Geometry	4.7	Investigate Symmetry	G-CO.1 G-CO.2	Architecture Professors
	1.17	Working with Rigid Transformations	G-CO.2 G-CO.5	NA
	1.18	Practicing Point by Point Transformations	G-CO.2 G-CO.5	NA



P2C	Lesson #	Title	Standard(s)	Career
EVIDENCE AND PROOF				
	1.19	Evidence, Angles, and Proof	G-CO.9	NA
Geometry	1.5	Solve Problems Using Pairs of Angles	G-CO.1 G-CO.9	Occupational Therapists
Geometry	5.3	Apply Angle Relationships in Triangles	G-CO.10	Physical Therapists
Geometry	2.9	Use Theorems about Angles	G-CO.8	Carpenters
	1.20	Transformations, Transversals, and Proof	G-CO.1 G-CO.2 G-CO.9 G-CO.10	NA
Geometry	3.3	Use Properties of Parallel Lines	G.CO.8	Tree Trimmers and Pruners
Geometry	3.5	Show Lines are Parallel	G.CO.8	Rail-Track Equipment Operators
Geometry	3.7	Use Properties of Perpendicular Lines	G-CO.9	Brickmasons and Blockmasons
	1.21	One Hundred and Eighty	G-CO.2 G-CO.9 G-CO.10	NA
Geometry	2.4	Apply Deductive Reasoning	G-CO.9 G-CO.10 G-CO.11	Child, Family, and School Social Workers
DESIGNS				
	1.22	Now What Can You Build?	G-CO.12 G-CO.13	NA



UNIT 2: CONGRUENCE

P2C	Lesson #	Title	Standard(s)	Career
CONGRUENT TRIANGLES				
	2.1	Congruent Parts, Part 1	G-CO.5 G-CO.6 G-CO.7 G-CO.11	NA
	2.2	Congruent Parts, Part 2	G-CO.6 G-CO.7 G-CO.8	NA
	2.3	Congruent Triangles, Part 1	G-CO.7 G-CO.8	NA
	2.4	Congruent Triangles, Part 2	G-CO.1 G-CO.8 G-CO.10 G-CO.11 G-SRT.3 N-Q.3	NA
Geometry	5.4	Triangle Congruence	G.CO.1 G.CO.5 G.CO.6 G.SRT.2	Graphic Designers
	2.5	Points, Segments, and Zigzags	G-CO.6	NA
	2.6	Side-Angle-Side Triangle Congruence	G-CO.8 G-CO.9 G-CO.10 G-CO.11	NA
	2.7	Angle-Side-Angle Triangle Congruence	G-CO.8 G-CO.10 G-CO.11	NA
	2.8	The Perpendicular Bisector Theorem	G-CO.3 G-CO.8 G-CO.9	NA
Geometry	6.4	Apply Special Segments in Triangles	G.CO.9	Postsecondary Art, Drama, and Music Teachers
	2.9	Side-Side-Side Triangle Congruence	G-CO.8 G-CO.9 G-CO.10 G-CO.11	NA
Geometry	5.6	Apply SSS and SAS Triangle Congruence	G.SRT.3	Glaziers
Geometry	5.9	Apply ASA and AAS Triangle Congruence	G.CO.5 G.SRT.3	Millwrights
	2.10	Practicing Proofs	G-CO.11 G-MG.3	NA
	2.11	Side-Side-Angle (Sometimes) Congruence		NA
Geometry	6.8	Apply Inequalities in One Triangle and Two Triangles	G-CO.10	Commercial Pilots
PROOFS ABOUT QUADRILATERALS				
	2.12	Proofs About Quadrilaterals	G-CO.11	NA
	2.13	Proofs About Parallelograms	G-CO.11	NA
Geometry	7.4	Apply Properties of and Conditions for Parallelograms	G.CO.10	Mechanical Drafters
	2.14	Bisect It	G-CO.9	NA
PUTTING IT ALL TOGETHER				
	2.15	Congruence for Quadrilaterals	G-CO.11	NA
Geometry	7.7	Identify Special Quadrilaterals	G.CO.10 G.MG.1	Motorcycle Mechanics
Geometry	7-P	Congruence	G-CO.2 G-CO.5 G-CO.6 G-CO.7 G-CO.9 G-CO.10 G-CO.11 G-SRT.5 G-MG.3	Computer Network Architects



UNIT 3: SIMILARITY

P2C	Lesson #	Title	Standard(s)	Career
PROPERTIES OF DILATIONS				
	3.1	Scale Drawings	G-CO.2 G-SRT.1 G-SRT.1a G-SRT.1b G-SRT.2	NA
	3.2	Scale of the Solar System	G-MG.3 G-SRT.2 N-Q.1	NA
	3.3	Measuring Dilations	G-CO.2 G-SRT.1 G-SRT.1b G-SRT.2	NA
	3.4	Dilating Lines and Angles	G-SRT.1 G-SRT.1a G-SRT.2 G-SRT.3	NA
Geometry	4.11	Apply Dilations	G-CO.2 G-MG.3	Advertising and Promotions Managers
Geometry	8.4	Use Similar Triangles	G.CO.7 G.CO.8 G.CO.9 G.SRT.3	Foresters
	3.5	Splitting Triangle Sides with Dilation, Part 1	G-CO.10 G-SRT.4	NA
SIMILARITY TRANSFORMATIONS AND PROPORTIONAL REASONING				
	3.6	Connecting Similarity and Transformations	G-SRT.1b G-SRT.2 G-SRT.5	NA
Geometry	8.1	Similar Polygons	G-SRT.5	Set and Exhibit Designers
	3.7	Reasoning about Similarity with Transformations	G-SRT.2 G-SRT.3	NA
	3.8	Are They All Similar?	G-1 G-SRT.2 G-SRT.6	NA
	3.9	Conditions for Triangle Similarity	G-SRT.3	NA
Geometry	5.10	Use Congruent Triangles	G-SRT.5	Photogrammetrists
	3.10	Other Conditions for Triangle Similarity		NA
Geometry	8.6	Apply Proportionality Theorems	G-SRT.3	Urban and Regional Planners
	3.11	Splitting Triangle Sides with Dilation, Part 2	G-SRT.4 G-SRT.5	NA
	3.12	Practice With Proportional Relationships	G-SRT.5 N-Q.1	NA
SIMILARITY IN RIGHT TRIANGLES				
Geometry	9.2	Apply the Pythagorean Theorem	G.CO.9 G.GPE.3 G.SRT.5.a	Construction and Building Inspectors
	3.13	Using the Pythagorean Theorem and Similarity	G-SRT.4 G-SRT.5	NA
Geometry	9.5	Use Similar Right Triangles	G-SRT.3	Photographers
	3.14	Proving the Pythagorean Theorem	A-CED.4 G-SRT.4	NA
	3.15	Finding All the Unknown Values in Triangles	G-SRT.5 G-SRT.8	NA
PUTTING IT ALL TOGETHER				
	3.16	Bank Shot	G-SRT.5 N-Q.3	NA



UNIT 4: RIGHT TRIANGLE TRIGONOMETRY

P2C	Lesson #	Title	Standard(s)	Career
ANGLES AND STEEPNESS				
	4.1	Angles and Steepness	G-MG.3 G-SRT.5 G-SRT.6 G-SRT.8 N-Q.2	NA
	4.2	Half a Square	G-SRT.5 G-SRT.6 N-Q.3	NA
	4.3	Half an Equilateral Triangle	G-SRT.5 G-SRT.6	NA
	4.4	Ratios in Right Triangles	G-SRT.6 G-SRT.7 G-SRT.8 N-Q.3	NA
	4.5	Working with Ratios in Right Triangles	G-SRT.6	NA
DEFINING TRIGONOMETRIC RATIOS				
	4.6	Working with Trigonometric Ratios	G-SRT.6	NA
	4.7	Applying Ratios in Right Triangles	G-SRT G-SRT.8 N-Q.2	NA
	4.8	Sine and Cosine in the Same Right Triangle	G-SRT.7	NA
	4.9	Using Trigonometric Ratios to Find Angles	G-SRT.6 G-SRT.8	NA
Geometry	9.8	Apply Trigonometric Ratios in Right Triangles	G.SRT.4.a G.SRT.5.a	Solar Photovoltaic Installers
	4.10	Solving Problems with Trigonometry	G-GMD.1 G-SRT G-SRT.8 N-Q.2	NA
Geometry	11.1	Find Areas of Triangles using Trigonometry	G-MG.2	Surveyors
	4.11	Approximating Pi	G-GMD.1 G-SRT N-Q.2	NA
Geometry	11.2	Areas of Parallelograms, Trapezoids, and Regular Polygons	G-MG.2	Fish and Game Wardens



UNIT 5: SOLID GEOMETRY

P2C	Lesson #	Title	Standard(s)	Career
CROSS SECTIONS, SCALING, AND AREA				
Geometry	5.1	Solids of Rotation	G-GMD.4	NA
	5.2	Slicing Solids	G-GMD.1 G-GMD.4	NA
	5.3	Creating Cross Sections by Dilating	G-GMD.1 G-GMD.4	NA
	12.2	Visualizing Solids	G.MG.1	Architectural and Civil Drafters
	5.4	Scaling and Area	A-SSE.1a F-IF.7b G-GMD G-GMD.1	NA
	5.5	Scaling and Unscaling	A-CED.2 F-IF.7b G-GMD G-GMD.1	NA
SCALING SOLIDS				
	5.6	Scaling Solids	A-SSE.1a F-IF.7b G-GMD G-GMD.1 N-Q.1	NA
	5.7	The Root of the Problem	A-CED.2 F-IF.7b G-GMD G-MG.3 N-Q.1	NA
	5.8	Speaking of Scaling	G-GMD G-GMD.1 G-GMD.4 G-MG.1 G-MG.3 N-Q.1	NA
PRISM AND CYLINDER VOLUMES				
Geometry	5.9	Cylinder Volumes	A-SSE.1b G-GMD.1 G-GMD.3 G-GMD.4	NA
	5.10	Cross Sections and Volume	G-GMD.1 G-GMD.4 G-MG.1	NA
	12.12	Apply Volumes of Cylinders, Cones and Spheres	G.GMD.1 G.GMD.2 G.N.Q.1.a G.N.Q.1.b G.N.Q.1.c	Architectural Engineers
	5.11	Prisms Practice	G-GMD.3 G-GMD.4 G-SRT.8	NA



P2C	Lesson #	Title	Standard(s)	Career
UNDERSTANDING PYRAMID VOLUMES				
	5.12	Prisms and Pyramids	G-GMD.1	NA
	5.13	Building a Volume Formula for a Pyramid	G-GMD.1	NA
	5.14	Working with Pyramids	G-GMD.3 G-MG.3	NA
Geometry	12.9	Apply Volumes of Prisms and Pyramids	G.GMD.1 G.GMD.2 G.N.Q.1.a G.N.Q.1.b G.N.Q.1.c	Heating, Air Conditioning and Refrigeration Mechanics and Installers
	5.15	Putting All the Solids Together	G-GMD.3 G-GMD.4	NA
PUTTING IT ALL TOGETHER				
	5.16	Surface Area and Volume	G-GMD.3 G-MG.1 G-MG.3	NA
Geometry	12.7	Apply Surface Areas of Cylinders, Cones, and Spheres	G.N.Q.1.a G.N.Q.1.b G.N.Q.1.c	Industrial Production Managers
Geometry	12.4	Apply Surface Areas of Prisms and Pyramids	G.N.Q.1.a G.N.Q.1.b G.N.Q.1.c	Anthropologists and Archaeologists
	5.17	Volume and Density	G-MG.2 N-Q.1	NA
Geometry	11.3	Areas of Composite Figures	G-MG.2	Appraisers and Assessors of Real Estate
	5.18	Volume and Graphing	F-IF.7b G-MG.1 G-MG.3	NA



UNIT 6: COORDINATE GEOMETRY

P2C	Lesson #	Title	Standard(s)	Career
TRANSFORMATION IN THE PLANE				
	6.1	Rigid Transformation in the Plane	G-CO.2 G-CO.5 G-CO	NA
	6.2	Transformation as Functions	G-CO.2 G-CO.5	NA
	6.3	Types of Transformations	G-CO.2 G-CO.5 G-GPE.7 G-SRT.5	NA
DISTANCES, CIRCLES, AND PARABOLAS				
	6.4	Distances and Circles	G-CO.1 G-GPE.1 G-GPE.4	NA
Geometry	10.11	Apply Circles in the Coordinate Plane	G.1 G.GPE.1	Geoscientists
	6.5	Squares and Circles	A-SSE.2 A-SSE.3 G-GPE.1	NA
	6.6	Completing the Square	A-SSE.3 G-GPE.1	NA
	6.7	Distances and Parabolas	G-GPE.2 G-GPE.4	NA
Algebra IIb	2.5	Applying Conic Sections	F-IF.8, G-GPE.3	
Algebra IIb	2.7	Applying Translating Conics	G-GPE.3	
	6.8	Equations and Graphs	A-SSE A-SSE.3 G-GPE.2	NA



P2C	Lesson #	Title	Standard(s)	Career
PROVING GEOMETRIC THEOREMS ALGEBRAICALLY				
Algebra I	6.9	Equations of Lines	A-SSE A-SSE.1a G-GPE.5	NA
	4.6	Using the Point-Slope Form of a Line	A-CED.2 A-CED.4	Social and Community Service Managers
	6.10	Parallel Lines in the Plane	G-GPE.4 G-GPE.5 N-Q.1	NA
Pre-Algebra	6.11	Perpendicular Lines in the Plane	G-CO.2 G-GPE.5 N-Q.1	NA
	5.9	Identify Parallel and Perpendicular Lines	8.F.4	Civil Engineers
	3.9	Use the Slope Criteria for Parallel and Perpendicular Lines	G.GPE.2	Civil Engineers
Geometry	6.12	It's All on the Line	A-CED.2 A-CED.4 G-GPE.5	NA
	6.13	Intersection Points	A-REI.7 G-GPE.5	NA
	6.14	Coordinate Proof	G-2 G-GPE.4 G-GPE.5 G-GPE.7	NA
Geometry	1.10	Area in the Coordinate Plane	G-GPE.7	Computer Specialists
Geometry	7.8	Identify Special Quadrilaterals in the Coordinate Plane	G.CO.10 G.GPE.1	Fashion Designers
Geometry	1.9	Perimeter in the Coordinate Plane	G-GPE.7	Fence Erectors
Geometry	3-P	Expressing Geometric Properties with Equations	G-GPE.4 G-GPE.5 G-CO.1	Health Informatics Specialists
Geometry	6.15	Weighted Averages	A-SSE.1a G-CO.2 G-GPE.6	NA
	1.8	Midpoint and Distance in the Coordinate Plane	G-CO.1	Emergency Medical Technicians & Paramedics
	6.16	Weighted Averages in a Triangle	G-CO.10 G-GPE.4 G-GPE.6 N-Q.1	NA
PUTTING IT ALL TOGETHER				
	6.17	Lines in Triangles	G-CO.10 G-GPE.4 G-GPE.5	NA



UNIT 7: CIRCLES				
P2C	Lesson #	Title	Standard(s)	Career
LINES, ANGLES, AND CIRCLES				
	7.1	Lines, Angles, and Curves	G-2 G-SRT.5	NA
	7.2	Inscribed Angles	G-2 G-SRT.5	NA
	7.3	Tangent Lines	G-2	NA
POLYGONS AND CIRCLES				
	7.4	Quadrilateral in Circles	G-3	NA
	7.5	Triangles in Circles	G-3 G-CO.10	NA
Geometry	10.6	Apply Central Angles and Inscribed Angles	G.CO.10 G.CO.9 G.GPE.1	Security and Fire Alarm Systems Installers
	7.6	A Special Point	G-3 G-CO.9 G-CO.10 G-SRT.5	NA
	7.7	Circles in Triangles	G-3 G-CO.10	NA
MEASURING CIRCLES				
	7.8	Arcs and Sectors	A-SSE.1b G-C G-5 G-GMD.1	NA
Geometry	11.5	Apply Circumference and Arc Length	G.N.Q.1.a G.N.Q.1.b G.N.Q.1.c	Mechanical Engineering Technicians
Geometry	11.7	Apply Areas of Circles and Sectors	G.1 G.N.Q.1.a G.N.Q.1.b G.N.Q.1.c	Cardiovascular Technologists and Technicians
	7.9	Part to Whole	G-C G-5	NA
Geometry	10.9	Apply Segment Relationships in Circles	G.1 G-SRT.5.a	Life, Physical and Social Science Technicians
	7.10	Angles, Arcs, and Radii	G-5 G-GMD.1	NA
	7.11	A New Way to Measure Angles	A-SSE.1b G-5	NA
	7.12	Radian Sense	G-5	NA
	7.13	Using Radians	A-CED.2 A-SSE.1 G-5	NA
PUTTING IT ALL TOGETHER				
	7.14	Putting It All Together	G-2 G-3 G-C G-MG.3 G-SRT.8	NA
Geometry	10-P	Circles	P.2 P.F.TF.1 P.F.TF.2 P.G.AT.3 P.G.AT.4	Telecommunications Engineering Specialist

UNIT 8: CONDITIONAL PROBABILITY

P2C	Lesson #	Title	Standard(s)	Career
UP TO CHANCE				
	8.1	Up to Chance	S-CP.1	NA
	8.2	Playing with Probability	S-CP.1	NA
	8.3	Sample Spaces	S-CP.1 S-CP.2	NA
	8.4	Tables of Relative Frequency	S-CP.4 S-ID.5	NA
COMBINING EVENTS				
	8.5	Combining Events	S-CP.1 S-CP.2	NA
	8.6	The Addition Rule	S-CP.7	NA
Geometry	13.4	Apply Probabilities of Disjoint and Overlapping Events	G.S.CP.1.b G.S.CP.4	Health Educators
RELATED EVENTS				
	8.7	Related Events	S-CP.2 S-CP.4 S-CP.5	
	8.8	Conditional Probability	S-CP.3 S-CP.6	
	8.9	Using Tables for Conditional Probability	S-CP.4	NA
Geometry	13.6	Apply Conditional Probabilities	G.S.CP.1.b G.S.CP.2 G.S.CP.4	Personal Financial Advisors
	8.10	Using Probability to Determine Whether Events Are Independent	S-CP.2 S-CP.3 S-CP.4 S-CP.5	NA
Geometry	13.8	Applying Probabilities of Independent Events	G.S.CP.1.b G.S.CP.2 G.S.CP.4	Information Security Analysts
Geometry	13.10	Applying Probabilities of Dependent Events	G.S.CP.2 G.S.CP.4	Gaming Managers
CONDITIONAL PROBABILITY				
	8.11	Probabilities in Games	S-CP.2 S-CP.3 S-CP.5 S-CP.6	NA
Geometry	13-P	Using Probability to Make Decisions	G.S.CP.1.b G.S.CP.2 G.S.CP.3.a G.S.CP.3.b	Computer Programmers

SUPPLEMENTAL P2C LESSONS NOT DIRECTLY TIED TO THE ABOVE LESSONS FOR ADDITIONAL LEARNING OPPORTUNITIES

Geometry	9.10	Apply the Law of Sines and the Law of Cosines	G-SRT.11, G-MG.3	Sound Engineering Technicians
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PATHWAY **2** CAREERS

P2C Math Crosswalk
Illustrative Math Traditional
McGraw Hill Algebra I

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**UNIT 1: ONE-VARIABLE STATISTICS**

P2C	Lesson #	Title	Standard(s)	Career
GETTING TO KNOW YOU				
	1	Getting to Know You	S-ID.1	NA
	2	Data Representations	S-ID.1 S-ID.2	NA
	3	A Gallery of Data	S-ID.1 S-ID.2	NA
DISTRIBUTION SHAPES				
	4	The Shape of Distributions	S-ID.1 S-ID.2	NA
	5	Calculating Measures of Center and Variability	S-ID.1 S-ID.2	NA
HOW TO USE SPREADSHEETS				
	6	Mystery Computations		NA
	7	Spreadsheet Computations		NA
	8	Spreadsheet Shortcuts		NA
MANIPULATING DATA				
	9	Technological Graphing	S-ID.1 S-ID.2 S-ID.3	NA
Algebra I	12.6	Applying Box Plots	S-ID.1 S-ID.3	Computer and Information Systems Managers
	10	The Effect of Extremes	S-ID.1 S-ID.2 S-ID.3	NA
Algebra I	12.3	Applying Measures of Center and Spread	S-ID.3	Statisticians
	11	Comparing and Contrasting Data Distributions	S-ID.2 S-ID.3	NA
	12	Standard Deviation	S-ID.2 S-ID.3	NA
	13	More Standard Deviation	S-ID.2 S-ID.3	NA
Algebra I	12.8	Applying Histograms	S-ID.1 S-ID.2 S-ID.3	Financial Examiners
	14	Outliers	S-ID.1 S-ID.2 S-ID.3	NA
	15	Comparing Data Sets	S-ID.1 S-ID.2	NA
ANALYZING DATA				
	16	Analyzing Data	S-ID.A S-ID.1 S-ID.2 S-ID.3	NA
Algebra I	12.9	Analyzing Data	S-ID.1 S-ID.2 S-ID.3	Market Research Analysts and Marketing Specialists
Algebra I	12-P	Interpreting Categorical and Quantitative Data	S-ID.1 S-ID.2 S-ID.3 S-ID.4	Search Marketing Analysts



UNIT 2: LINEAR EQUATIONS INEQUALITIES AND SYSTEMS

P2C	Lesson #	Title	Standard(s)	Career
WRITING AND MODELING WITH EQUATIONS				
	1	Planning a Pizza Party	A-CED.2 A-CED.3 N-Q.2	NA
Algebra I	1.8	Structure of Expressions	A-SSE.1.a	Economics Teachers Postsecondary
Algebra I	1-P	Seeing Structure in Expressions	A-SSE.1.a A-SSE.1.b	Database Architects
Algebra I	1.4	Modeling with Quantities	N-Q.2	Terrazzo Workers and Finishers
	2	Writing Equations to Model Relationships (Part 1)	A-CED.2 A-CED.3	NA
	3	Writing Equations to Model Relationships (Part 2)	A-CED.2 A-CED.3 F-LE.2	NA
Algebra I	2.5	Solving Linear Equations with a Variable on Both Sides	A-CED.1 A-REI.1 A-REI.3	Bookkeeping Accounting and Auditing Clerks
	4	Equations and Their Solutions	A-REI.A A-REI.3	NA
Algebra I	2.2	Writing Linear Equations	A-CED.1 A-REI.3	Credit Counselors
Algebra I	2.4	Solving Linear Equations with a Variable on One Side	A-CED.1 A-REI.1 A-REI.3	Veterinarians
	5	Equations and Their Graphs	A-CED.2 A-CED.3 A-REI.D.10	NA
Algebra I	4-P	Creating Equations	A-SSE.1 A-CED.1 A-CED.2 A-CED.4 A-REI.3	Software Developers
MANIPULATING EQUATIONS AND UNDERSTANDING THEIR STRUCTURE				
	6	Equivalent Equations	A-CED.2 A-REI.A A-REI.1 A-SSE.1	NA
	7	Explaining Steps for Rewriting Equations	A-REI.A A-REI.1	NA
Algebra IIa	1.5	Applying Absolute Value	A-CED.1, A-REI.3	Instructional Coordinators
	8	Which Variable to Solve for? (Part 1)	A-CED.4 A-REI.3	NA
	9	Which Variable to Solve for? (Part 2)	A-CED.3 A-CED.4 A-REI.3	NA
Algebra I	2.7	Solving Literal Equations and Formulas	N-Q.1 A-CED.4 A-REI.1	Electricians
Pre-Algebra	2.11	Rewrite Formulas	8.EE.7.b	Registered Nurses
	10	Connecting Equations to Graphs (Part 1)	A-CED.3 A-CED.4 A-REI.D.10	NA
	11	Connecting Equations to Graphs (Part 2)	A-CED.4 A-REI.D.10	NA



P2C	Lesson #	Title	Standard(s)	Career
SYSTEMS OF LINEAR EQUATIONS IN TWO VARIABLES				
	12	Writing and Graphing Systems of Linear Equations	A-CED.3 A-REI.A A-REI.6	NA
Algebra I	5.2	Applying Systems of Linear Equations	A-CED.2 A-CED.3 A-REI.6	Chefs and Head Cooks
Algebra I	5.6	Writing and Solving Systems of Linear Equations	A-CED.3 A-REI.6	Software Developers Applications
	13	Solving Systems by Substitution	A-REI.6	NA
Pre-Algebra	6.4	Apply Solving Linear Systems by Substitution	8.EE.8.b 8.EE.8.c	Credit Counselors
	14	Solving Systems by Elimination (Part 1)	A-REI.5 A-REI.6	NA
	15	Solving Systems by Elimination (Part 2)	A-REI.5 A-REI.6	NA
	16	Solving Systems by Elimination (Part 3)	A-REI.5 A-REI.6	NA
Pre-Algebra	6.7	Apply Solving Linear Systems by Elimination	8.EE.8.b 8.EE.8.c	Personal Financial Advisors
	17	Systems of Linear Equations and Their Solutions	A-CED.3 A-REI.6	NA
LINEAR INEQUALITIES IN ONE VARIABLE				
	18	Representing Situations with Inequalities	A-CED.3 N-Q.2	NA
	19	Solutions to Inequalities in One Variable	A-CED.1 A-REI.3	NA
Algebra I	3.3	Solving Linear Inequalities in One Variable	A-CED.1 A-REI.3	Property Real Estate and Community Association Managers
Algebra I	3.6	Using Compound Inequalities	A-CED.1 A-CED.3 A-REI.3	Billing and Posting Clerks
	20	Writing and Solving Inequalities in One Variable	A-CED.1 A-CED.3 A-REI.3	NA
LINEAR INEQUALITIES IN TWO VARIABLES				
	21	Graphing Linear Inequalities in Two Variables (Part 1)	A-REI.D.12	NA
	22	Graphing Linear Inequalities in Two Variables (Part 2)	A-CED.3 A-REI.D.10 A-REI.D.12	NA
	23	Solving Problems with Inequalities in Two Variables	A-CED.3 A-REI.D.12	NA
Algebra I	5.9	Writing and Using Linear Inequalities in Two Variables	A-CED.3 A-REI.12	Soil and Plant Scientists



P2C	Lesson #	Title	Standard(s)	Career
SYSTEMS OF LINEAR INEQUALITIES IN TWO VARIABLES				
	24	Solutions to Systems of Linear Inequalities in Two Variables	A-CED.3 A-REI.D.12	NA
Pre-Algebra	2.14	Applying Solving Inequalities	extending 8.EE.7.b	Water Resource Specialists
	25	Solving Problems with Systems of Linear Inequalities in Two Variables	A-REI.D.12	NA
Algebra IIa	3.7	Using Systems of Inequalities to Find the Feasible Region	A-REI.8	
Algebra I	5.11	Applying Systems of Linear Inequalities	A-CED.3 A-REI.12	Industrial Engineers
	26	Modeling with Systems of Inequalities in Two Variables	A-CED.3 A-REI.D.12 N-Q.2	NA
Algebra IIa	3.6	Applying Systems of Two Linear Inequalities	A-REI.8	
Algebra I	3.9	Solving Inequalities Graphically	A-CED.1 A-CED.3 A-REI.3	Business Operations Specialists All Other
Algebra I	5-P	Reasoning with Equations and Inequalities	A-REI.3 A-REI.6 A-REI.10 A-REI.11 A-REI.12	Geographic Information Systems Technologists and Technicians

UNIT 3: TWO-VARIABLE STATISTICS				
P2C	Lesson #	Title	Standard(s)	Career
TWO-WAY TABLES				
	1	Two-way Tables	S-ID.5	NA
Pre-Algebra	7.6	Display Data from Two-Way Tables	preparing for 8.SP.4	Data Scientists
	2	Relative Frequency Tables	S-ID.5	NA
Algebra I	12.11	Applying Two-Way Frequency Tables	S-ID.5	Social Science Research Assistants
	3	Associations in Categorical Data	S-ID.5	NA
SCATTER PLOTS				
	4	Linear Models	S-ID.6 S-ID.6.a S-ID.6.c S-ID.7	NA
	5	Fitting Lines	S-ID.6 S-ID.6.a S-ID.6.c S-ID.7	NA
Algebra I	4.13	Applying Scatter Plots and Lines of Fit	S-ID.6.a S-ID.6.c F-LE.5	Cost Estimators
	6	Residuals	N-Q.3 S-ID.6.a S-ID.6.b S-ID.6.c	NA
CORRELATION COEFFICIENTS				
	7	The Correlation Coefficient	S-ID.6 S-ID.8	NA
	8	Using the Correlation Coefficient	S-ID.6 S-ID.6.a S-ID.7 S-ID.8 S-ID.9	NA
	9	Causal Relationships	S-ID.6 S-ID.9	NA
Algebra I	4.14	Analyzing Lines of Fit	S-ID.6.a S-ID.7 S-ID.8 S-ID.9 F-LE.5	Financial Managers
ESTIMATING LENGTHS				
	10	Fossils and Flags	S-ID.6 S-ID.7 S-ID.8 S-ID.9	NA



UNIT 4: FUNCTIONS

P2C	Lesson #	Title	Standard(s)	Career
FUNCTIONS AND THEIR REPRESENTATIONS				
	1	Describing and Graphing Situations	F-IF.1 F-IF.4	NA
	2	Function Notation	F-IF.1 F-IF.2 F-IF.4	NA
	3	Interpreting & Using Function Notation	F-IF.2 F-IF.4	NA
Algebra I	11-P	Interpreting Functions	F-LE.1 F-LE.3 F-LE.5 F-IF.4 F-IF.6	Health Informatics Specialists
	4	Using Function Notation to Describe Rules (Part 1)	F-BF.1 F-BF.1.a F-IF.1 F-IF.2 F-IF.4 F-IF.C	NA
	5	Using Function Notation to Describe Rules (Part 2)	A-REI.1 F-IF.2 F-IF.4 F-IF.7	NA
ANALYZING AND CREATING GRAPHS OF FUNCTIONS				
	6	Features of Graphs	F-IF.4	NA
	7	Using Graphs to Find Average Rate of Change	F-IF.6	NA
Algebra I	4.9	Rate of Change of Linear Functions	F-IF.6	Fitness Trainers and Aerobics Instructors
	8	Interpreting and Creating Graphs	F-IF.4 F-IF.6	NA
Algebra I	4.10	Representations of Linear Functions	F-IF.9, F-LE.1.b	Geological and Petroleum Technicians
	9	Comparing Graphs	A-REI.D.11 F-IF.4 F-IF.6	NA
Algebra I	4.11	Using Graphs of Linear Functions	A-CED.2 A-CED.3 A-REI.10 F-IF.6 F-IF.7.a	Hydrologists
A CLOSER LOOK AT INPUTS AND OUTPUTS				
	10	Domain and Range (Part 1)	F-IF.B F-IF.5	NA
	11	Domain and Range (Part 2)	F-IF.4 F-IF.5	NA
	12	Piecewise Functions	F-IF.2 F-IF.5 F-IF.C F-IF.7 F-IF.7.b	NA
Algebra I	10.3	Applying Step Functions	F-IF.4, F-IF.5, F-IF.7.b	Cargo and Freight Agents
Algebra I	10.5	Applying Piecewise-Defined Functions	F-IF.4 F-IF.5 F-IF.7.b	Tax Preparers
Algebra Ila	6.7	Applying Piecewise Functions	F-IF.7, F-IF.7.b	
	13	Absolute Value Functions (Part 1)	F-IF.C F-IF.7.b	NA
	14	Absolute Value Functions (Part 2)	F-BF.1 F-BF.1.a F-BF.3 F-IF.C F-IF.7.b	NA
Algebra Ila	6.5	Applying Graphing Absolute Value Inequalities	F-IF.7.b	Power Plant Operators



P2C	Lesson #	Title	Standard(s)	Career
INVERSE FUNCTIONS				
	15	Inverse Functions	F-BF.4	NA
	16	Finding and Interpreting Inverse Functions	A-CED.4 F-BF.4	NA
	17	Writing Inverse Functions to Solve Problems	F-BF.1 F-BF.4 F-BF.4.a F-IF.2 F-IF.4 S-ID.6.a S-ID.6.c	NA
Algebra I	11.12	Applying Inverse Functions	F-BF.4.a	Wind Turbine Service Technicians
PUTTING IT ALL TOGETHER				
	18	Using Functions to Model Battery Power	F-BF.1 F-IF.6 S-ID.6 S-ID.6.a S-ID.6.c	NA



UNIT 5: INTRODUCTION TO EXPONENTIAL FUNCTIONS

P2C	Lesson #	Title	Standard(s)	Career
LOOKING AT GROWTH				
	1	Growing and Growing	F-BF.1.a F-IF.4 F-LE.3	NA
	2	Patterns of Growth	F-BF.A F-BF.1.a F-IF.4 F-LE.1 F-LE.2	NA
A NEW KIND OF RELATIONSHIP				
	3	Representing Exponential Growth	A-CED.2 F-BF.1.a F-IF.7 F-LE.5	NA
Algebra I	6.4	Graphing Exponential Functions	F-IF.1 F-IF.4 F-IF.7.e	Accountants and Auditors
Algebra I	6.6	Applying Exponential Growth	F-LE.1.c F-IF.8.b	Animal Scientists
	4	Understanding Decay	A-CED.2 A-SSE.1 F-BF.A F-BF.1.a F-LE.2 F-LE.5	NA
	5	Representing Exponential Decay	A-CED.2 F-BF.A F-IF.4 F-IF.7.e F-LE.2 F-LE.5	NA
Algebra I	6.7	Applying Exponential Decay	F-LE.1.c F-IF.8.b	Forensic Science Technicians
	6	Analyzing Graphs	A-CED.2 F-BF.1 F-IF.4	NA
	7	Using Negative Exponents	A-CED.2 A-SSE.1 F-IF.4 F-IF.7.e F-LE.5 N-Q.1	NA
EXPONENTIAL FUNCTIONS				
	8	Exponential Situations as Functions	F-IF.2 F-IF.B F-IF.5 F-IF.7 F-LE.2 N-Q.1	NA
	9	Interpreting Exponential Functions	A-SSE.A F-IF.2 F-IF.5 F-IF.7.e F-LE.2	NA
Algebra I	6.9	Applying Exponential Equations	A-CED.1 A-REI.1 A-SSE.3.c	Epidemiologists
	10	Looking at Rates of Change	F-IF.6	NA
	11	Modeling Exponential Behavior	F-BF.1 F-IF.2 F-IF.4 F-IF.5 F-LE.1 F-LE.1.c F-LE.2 F-LE.5 N-Q.1 N-Q.3 S-ID.6.a	NA
	12	Reasoning about Exponential Graphs (Part 1)	F-IF.4 F-LE.5	NA
	13	Reasoning about Exponential Graphs (Part 2)	F-IF.4 F-LE.2 F-LE.5	NA
Algebra I	6.10	Comparing Exponential Functions	F-IF.9, F-IF.8.b	Insurance Sales Agents



P2C	Lesson #	Title	Standard(s)	Career
PERCENT GROWTH AND DECAY				
	14	Recalling Percent Change	F-LE.2	NA
Pre-Algebra	4.7	Solve Percent Problems	8.EE.6	Sales Representatives Wholesale and Manufacturing
	15	Functions Involving Percent Change	F-BF.1 F-BF.1.a F-IF.6 F-IF.7.e F-LE.2	NA
	16	Compounding Interest	F-BF.1.a	NA
	17	Different Compounding Intervals	A-SSE.A A-SSE.1 F-BF.1.a F-IF.2 N-Q.2	NA
	18	Expressed in Different Ways	A-SSE.1.b A-SSE.3.c F-IF.2 F-IF.8 F-IF.8.b	NA
COMPARING LINEAR AND EXPONENTIAL FUNCTIONS				
	19	Which One Changes Faster?	F-IF.2 F-IF.4 F-IF.5 F-LE.1 F-LE.2 F-LE.3	NA
	20	Changes over Equal Intervals	F-LE.1.a F-LE.1.b F-LE.2	NA
PUTTING IT ALL TOGETHER				
	21	Predicting Populations	F-LE.1 F-LE.1.b F-LE.1.c F-LE.2 N-Q.3 S-ID.6.a	NA



UNIT 6: INTRODUCTION TO QUADRATIC FUNCTIONS

P2C	Lesson #	Title	Standard(s)	Career
A DIFFERENT KIND OF CHANGE				
	1	A Different Kind of Change	F-BF.1.a F-LE.A	NA
	2	How Does it Change?	A-SSE.1 A-SSE.3 F-BF.1.a	NA
Algebra I	10.11	Applying Comparisons of Linear Exponential and Quadratic Models	F-IF.6 F-IF.9 F-LE.3	Appraisers and Assessors of Real Estate
QUADRATIC FUNCTIONS				
	3	Building Quadratic Functions from Geometric Patterns	A-SSE.1 F-BF.1.a F-IF.2	NA
	4	Comparing Quadratic and Exponential Functions	F-BF.1.a F-IF.C F-LE.3	NA
	5	Building Quadratic Functions to Describe Situations (Part 1)	F-BF.1 F-BF.1.a F-IF.2	NA
	6	Building Quadratic Functions to Describe Situations (Part 2)	F-BF.1 F-BF.1.a F-IF.5 F-IF.C F-IF.7.a	NA
	7	Building Quadratic Functions to Describe Situations (Part 3)	F-BF.1.a F-IF.5 F-IF.7.a	NA
Algebra I	10-P	Linear Quadratic and Exponential Models	F-LE.1.a F-LE.1.b F-LE.1.c F-LE.2 F-LE.3 F-LE.5	Business Intelligence Analysts
WORKING WITH QUADRATIC EXPRESSIONS				
	8	Equivalent Quadratic Expressions	A-SSE.A A-SSE.2 A-SSE.3 F-IF.8	NA
	9	Standard Form and Factored Form	A-SSE.2 A-SSE.3 F-IF.8	NA
	10	Graphs of Functions in Standard and Factored Forms	A-SSE.3	NA
Algebra I	9.10	Comparing Quadratic Functions	F-IF.4, F-IF.9	Industrial Production Managers



P2C	Lesson #	Title	Standard(s)	Career
FEATURES OF QUADRATIC FUNCTIONS				
	11	Graphing from the Factored Form	A-SSE.A F-IF.7.a	NA
	12	Graphing the Standard Form (Part 1)	F-BF.3 F-IF.C F-IF.7 F-LE.2	NA
	13	Graphing the Standard Form (Part 2)	A-SSE.3 F-BF.3 F-IF.7 F-IF.7.a	NA
Algebra I	9.4	Applying Graphs of Quadratic Functions	A-SSE.3.a A-SSE.3.b F-IF.7.a F-IF.8.a	Aerospace Engineers
	14	Graphs That Represent Situations	F-IF.2 F-IF.4 F-IF.7.a F-IF.8 F-IF.9	NA
	15	Vertex Form	F-BF.3 F-IF.C F-IF.7.a F-IF.8.a	NA
Algebra I	9.3	Applying the Vertex Form of Quadratic Functions	A-SSE.3.b F-IF.7.a F-IF.8.a	Atmospheric and Space Scientists
	16	Graphing from the Vertex Form	F-IF.C F-IF.7.a	NA
	17	Changing the Vertex	F-BF.3 F-IF.C F-IF.7.a	NA



UNIT 7: QUADRATIC FUNCTIONS

P2C	Lesson #	Title	Standard(s)	Career
FINDING UNKNOWN INPUTS				
	1	Finding Unknown Inputs	A-CED.1 A-CED.3	NA
	2	When and Why Do We Write Quadratic Equations?	A-CED.1 A-REI.4	NA
SOLVING QUADRATIC EQUATIONS				
	3	Solving Quadratic Equations by Reasoning	A-REI.1 A-REI.4.b	NA
Algebra IIa	5.5	Applying Properties of Quadratics	A-APR.2	Structural Iron and Steel Workers
	4	Solving Quadratic Equations with the Zero Product Property	A-CED.1 A-REI.4 A-REI.4.b A-SSE.3	NA
	5	How Many Solutions?	A-REI.1 A-REI.4 A-REI.4.b A-REI.D A-REI.D.10	NA
	6	Rewriting Quadratic Expressions in Factored Form (Part 1)	A-REI.4.b A-SSE.2 A-SSE.3.a	NA
	7	Rewriting Quadratic Expressions in Factored Form (Part 2)	A-REI.4.b A-SSE.2 A-SSE.3.a	NA
	8	Rewriting Quadratic Expressions in Factored Form (Part 3)	A-REI.4.b A-SSE.2 A-SSE.3.a	NA
	9	Solving Quadratic Equations by Using Factored Form	A-REI.4 A-REI.4.b A-SSE.3.a	NA
	10	Rewriting Quadratic Expressions in Factored Form (Part 4)	A-REI.4.b A-REI.d A-SSE.a A-SSE.2 A-SSE.3.a F-IF.4	NA
COMPLETING THE SQUARE				
	11	What are Perfect Squares?	A-REI.4.a A-REI.4.b A-SSE.2	NA
	12	Completing the Square (Part 1)	A-REI.4.a A-REI.4.b A-SSE.a A-SSE.2	NA
	13	Completing the Square (Part 2)	A-REI.A A-REI.4.b	NA
	14	Completing the Square (Part 3)	A-REI.4.a A-REI.4.b A-SSE.2	NA
	15	Quadratic Equations with Irrational Solutions	A-REI.4.a A-REI.4.b A-REI.D N-RN.B	NA



P2C	Lesson #	Title	Standard(s)	Career
THE QUADRATIC FORMULA				
	16	The Quadratic Formula	A-REI.4.b A-SSE.a	NA
	17	Applying the Quadratic Formula (Part 1)	A-CED.1 A-REI.A A-REI.4 A-REI.4.b F-IF.5	NA
	18	Applying the Quadratic Formula (Part 2)	A-CED.1 A-REI.4.b F-IF.2	NA
	19	Deriving the Quadratic Formula	A-REI.4.a A-SSE.2	NA
	20	Rational and Irrational Solutions	A-REI.4.b F-IF.7.a N-RN.3	NA
	21	Sums and Products of Rational and Irrational Numbers	A-REI.4.b N-RN.b N-RN.3	NA
VERTEX FORM REVISITED				
	22	Rewriting Quadratic Expressions in Vertex Form	A-SSE.3.a A-REI.4.a F-IF.8.a	NA
	23	Using Quadratic Expressions in Vertex Form to Solve Problems	A-SSE.3 F-IF.4 F-IF.7.a F-IF.8.a F-BF.3 A-REI.4.a F-LE.2	NA
SUPPLEMENTAL P2C LESSONS NOT DIRECTLY TIED TO THE ABOVE LESSONS FOR ADDITIONAL LEARNING OPPORTUNITIES				
Algebra I	1.3	Applying Dimensional Analysis	N-Q.1	Dental Laboratory Technicians
Algebra I	1.5	Precision and Accuracy	N-Q.1, N-Q.3	Environmental Science And Protection Technicians
Algebra I	3.8	Writing and Solving Absolute Value Inequalities	A-CED.1, A-CED.3, A-REI.3	Exercise Physiologists
Algebra I	9.9	Using Quadratic Equations to Solve Problems	A-REI.4.a A-REI.4.b	Physicists



PATHWAY **2** CAREERS

P2C Math Crosswalk
Illustrative Math Traditional
McGraw Hill Algebra II

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UNIT 1: SEQUENCES AND FUNCTIONS

P2C	Lesson #	Title	Standard(s)	Career
A TOWERING SEQUENCE				
	1	A Towering Sequence	F-BF.1.a F-BF.2	NA
Algebra I	7.1	Understanding Sequences	F-IF.3 F-BF.1.a	Biological Science Teachers, Postsecondary
SEQUENCES				
	2	Introducing Geometric Sequences	F-BF.2 F-LE.2	NA
Algebra I	7.7	Applying Geometric Sequences	F-BF.1.a F-BF.2	Actuaries
Algebra IIb	8.5	Applying Geometric Series and Sequences	A-SSE.4 F-BF.2	Agricultural Technicians
	3	Different Types of Sequences	F-BF.2 F-IF.3 F-IF.C F-LE.2	NA
Algebra I	7.4	Applying Arithmetic Sequences	F-BF.1.a F-BF.2	General and Operations Managers
Algebra IIb	8.3	Applying Arithmetic Series and Sequences	A-SSE.4 F-BF.2	Library Technicians
	4	Using Technology to Work with Sequences	F-IF.C	NA
	5	Sequences are Functions	F-BF.2 F-IF.3 F-LE.2	NA
	6	Representing Sequences	F-BF.2 F-IF.C F-LE.2	NA
Algebra I	7.8	Applying Recursively-Defined Sequences	F.BF.1.a F-IF.3	Sociologists
	7	Representing More Sequences	F-BF.2 F-IF.3 F-LE.2	NA
WHAT'S THE EQUATION?				
	8	The nth Term	F-BF.2 F-LE.2	NA
	9	What's the Equation?	F-BF.2 F-IF.3 F-IF.5 F-LE.2	NA
	10	Situations and Sequence Types	F-BF.2 F-LE.2	NA
	11	Adding Up	A-SSE.4 F-BF.1.a F-BF.2	NA



UNIT 2: POLYNOMIALS

P2C	Lesson #	Title	Standard(s)	Career
WHAT IS A POLYNOMIAL?				
	1	Let's Make a Box	A-CED.2 A-SSE.1.a F-IF.4 F-IF.5	NA
	2	Funding the Future	A-APR.1 A-CED.2 A-REI.D.11 A-SSE.1 F-IF.2	NA
	3	Introducing Polynomials	A-SSE.A F-BF.3 F-IF.4 F-IF.7 F-IF.7.c	NA
Algebra I	8.1	Modeling with Polynomials	A-SSE.1.a	Astronomers
	4	Combining Polynomials	A-APR.1	NA
Algebra I	8.6	Operations with Polynomials	A-SSE.3 A-APR.1	Operations Research Analyst
WORKING WITH POLYNOMIALS				
	5	Connecting Factors and Zeros	A-APR.B A-APR.3	NA
	6	Different Forms	A-APR.A A-APR.1 A-APR.B A-APR.3 A-SSE.3 F-BF.3	NA
	7	Using Factors and Zeros	A-APR.B A-APR.3 A-SSE.1.a F-IF.7.c	NA
	8	End Behavior (Part 1)	A-APR.3 A-SSE.A F-IF.C F-IF.7.c	NA
	9	End Behavior (Part 2)	A-SSE.A F-BF.3 F-IF.C	NA
	10	Multiplicity	A-APR.3 F-IF.7.c	NA
	11	Finding Intersections	A-APR.B A-REI.7 A-REI.11	NA
Algebra I	9.13	Applying Linear-Quadratic Systems	A-REI.7 A-REI.11	Economists
	12	Polynomial Division (Part 1)	A-APR.A A-APR.2 A-APR.3	NA
	13	Polynomial Division (Part 2)	A-APR.A A-APR.2	NA
Algebra IIa	7.4	Applying Polynomial Division	A-APR.2 A-APR.6	Chemical Engineers
	14	What Do You Know About Polynomials?	A-APR.A A-APR.B A-APR.2 A-APR.3	NA
	15	The Remainder Theorem	A-APR.2	NA
Algebra I	8-P	Arithmetic with Polynomials and Rational Expressions	A-APR.1 A-SSE.1 A-SSE.2	Video Game Designers



P2C	Lesson #	Title	Standard(s)	Career
RATIONAL FUNCTIONS				
	16	Minimizing Surface Area	A-CED.A A-CED.2 A-CED.4	NA
	17	Graphs of Rational Functions (Part 1)	A-CED.2 F-BF.3 F-IF.4 F-IF.C F-IF.7	NA
	18	Graphs of Rational Functions (Part 2)	A-APR.D.6 A-SSE.1 F-IF.C	NA
Algebra IIa	7.7	Applying Graphs of Polynomial Functions	A-APR.3 A-REI.5 F-IF.7.c	Electrical Engineers
	19	End Behavior of Rational Functions	A-APR.D.6 A-SSE.1 F-IF.7	NA
RATIONAL EQUATIONS				
	20	Rational Equations (Part 1)	A-CED.1 A-CED.2 A-REI.A A-REI.1	NA
	21	Rational Equations (Part 2)	A-CED.1 A-REI.A A-REI.1 A-REI.D.11	NA
	22	Solving Rational Equations	A-REI.2	NA
Algebra IIb	1.4	Applying Solving Rational Equations	A-APR.7 A-REI.2	Respiratory Therapists
Algebra IIb	1.6	Applying Using Polynomial Division to Solve Rational Equations	A-CED.1	Budget Analysts
POLYNOMIAL IDENTITIES				
	23	Polynomial Identities (Part 1)	A-APR.4 A-SSE.2 A-SSE.4	NA
	24	Polynomial Identities (Part 2)	A-APR.4 A-APR.D	NA
	25	Summing Up	A-APR.C A-SSE.2 A-SSE.4	NA
	26	Using the Sum	A-SSE.1 A-SSE.4	NA

**UNIT 3: COMPLEX NUMBERS AND RATIONAL EXPONENTS**

P2C	Lesson #	Title	Standard(s)	Career
EXPONENT PROPERTIES				
	1	Properties of Exponents	N-RN.1 N-RN.2	NA
	2	Square Roots and Cube Roots	N-RN.1 N-RN.2	NA
	3	Exponents That are Unit Fractions	N-RN.1 N-RN.2	NA
	4	Positive Rational Exponents	N-RN.1 N-RN.2	NA
	5	Negative Rational Exponents	N-RN.1 N-RN.2	NA
SOLVING EQUATIONS WITH SQUARE AND CUBE ROOTS				
	6	Squares and Square Roots	A-REI.2	NA
Algebra I	11.3	Writing Square Root Functions	A-CED.2 A-REI.2	Radiologic Technologists
Algebra I	11.4	Applying Square Root Functions	A-CED.1 A-REI.2	Registered Nurses
Algebra I	11.5	Applying Graphs of Square Root Functions	F-IF.4 F-IF.5 F-IF.7.b	Mechanical Engineers
	7	Inequivalent Equations	A-REI.1 A-REI.2 A-REI.4.b	NA
	8	Cubes and Cube Roots	A-REI.2 A-REI.D.11	NA
	9	Solving Radical Equations	A-REI.2	NA
Algebra IIa	1.7	Applying Exponents and Radicals	N-RN.1 N-RN.2 F-IF.7.b	Environmental Scientists and Specialists, Including Health
Algebra IIa	8.7	Applying Radical Functions	A-REI.2 A-CED.1	Electrical and Electronics Drafters
A NEW KIND OF NUMBER				
	10	A New Kind of Number	N-CN.1 N-CN.2	NA
	11	Introducing the Number i	N-CN.1 N-CN.2 N-CN.7	NA
	12	Arithmetic with Complex Numbers	N-CN.1 N-CN.2	NA
	13	Multiplying Complex Numbers	N-CN.1 N-CN.2	NA
	14	More Arithmetic with Complex Numbers	N-CN.1 N-CN.2	NA
Algebra IIb	3.3	Applying Operations with Complex Numbers	N-CN.3 N-CN.9	Mathematicians
	15	Working Backwards	N-CN.2 N-CN.7	NA
Algebra IIb	3.6	Applying Moduli and Arguments	N-CN.3 N-CN.4	Electricians
Algebra IIb	3.9	Applying Using Notation with Complex Numbers	N-CN.3 N-CN.7	Electronics Engineers



P2C	Lesson #	Title	Standard(s)	Career
SOLVING QUADRATICS WITH COMPLEX NUMBERS				
	16	Solving Quadratics	A-REI.4.a A-REI.4.b	NA
Algebra IIa	5.3	Applying Graphing in Standard Form	F-BF.3 F-IF.8	Tool and Die Makers
Algebra IIa	5.5	Applying Properties of Quadratics	A-APR.2	Structural Iron and Steel Workers
	17	Completing the Square and Complex Solutions	A-REI.4.b A-REI.D.11 N-CN.7	NA
	18	The Quadratic Formula and Complex Solutions	A-REI.4 N-CN.7	NA
	19	Real and Non-Real Solutions	A-REI.4.b N-CN.7	NA
Algebra IIa	5.8	Applying Solving Quadratic Functions Using Square Roots	F-LE.4 N-CN.9	Airfield Operations Specialists



UNIT 4: EXPONENTIAL EQUATIONS AND FUNCTIONS

P2C	Lesson #	Title	Standard(s)	Career
GROWING AND SHRINKING				
	1	Growing and Shrinking	F-LE.1.b F-LE.1.c F-LE.2	NA
	2	Representations of Growth and Decay	A-SSE.1 F-LE.2 F-LE.5	NA
Algebra IIb	4.2	Applying Exponential Growth and Decay	F-LE.2 F-LE.3 F-IF.7.e S-ID.6.a	Microbiologists
UNDERSTANDING NON-INTEGERS INPUTS				
	3	Understanding Rational Inputs	F-LE.2 N-RN.1	NA
	4	Representing Functions at Rational Inputs	A-SSE.1 A-SSE.3.c F-LE.2	NA
	5	Changes Over Rational Intervals	A-SSE.A F-LE.1.a F-LE.1.b	NA
	6	Writing Equations for Exponential Functions	A-SSE.1 F-IF.8.b F-LE.2 N-RN.1	NA
	7	Interpreting and Using Exponential Functions	A-SSE.1 A-SSE.3 F-LE.5 N-RN.1	NA
MISSING EXPONENTS				
	8	Understanding Exponents	F-BF.1.a F-LE.4	NA
	9	What is a Logarithm?	F-LE.4	NA
	10	Interpreting and Writing Logarithmic Equations	A-SSE.3 F-LE.4	NA
	11	Evaluating Logarithmic Expressions	F-LE.4	NA
THE CONSTANT E				
	12	The Number e	F-IF.2 F-LE.4 F-LE.5	NA
	13	Exponential Functions with Base e	A-SSE.1.b F-IF.7 F-LE.A F-LE.4 F-LE.5	NA
	14	Solving Exponential Equations	F-LE.4	NA
LOGARITHMIC FUNCTIONS AND GRAPHS				
	15	Using Graphs and Logarithms to Solve Problems (Part 1)	A-REI.D.11 F-IF.7.e F-LE.4 F-LE.5	NA
	16	Using Graphs and Logarithms to Solve Problems (Part 2)	A-REI.D.11 F-LE.4	NA
	17	Logarithmic Functions	F-IF.C F-IF.7.e F-LE.4	NA
Algebra IIb	4.6	Applying Properties of Logarithmic Functions	A-REI.5 F-BF.5 F-LE.4 F-IF.7.e	Obstetricians
	18	Applications of Logarithmic Functions	F-IF.4 F-LE.4	
Algebra IIb	4.8	Applying Solving Exponential and Logarithmic Equations	F-BF.5 F-LE.4 F-LE.5	Environmental Scientists and Specialists, Including Health
Algebra IIb	4-P	Building Functions	M.A2HS.27 M.A2HS.28 M.A2HS.29	Software Quality Assurance Analysts



UNIT 5: TRANSFORMATIONS OF FUNCTIONS

P2C	Lesson #	Title	Standard(s)	Career
TRANSLATIONS, REFLECTIONS, AND SYMMETRY				
	1	Matching up to Data	F-BF.3 S-ID.6.a	NA
	2	Moving Functions	F-BF.3	NA
	3	More Movement	F-BF.1 F-BF.3 S-ID.6.a	NA
	4	Reflecting Functions	F-BF.3	NA
Algebra I	10.9	Operations on Functions	A-REI.10 F-BF.3	Film and Video Editors
	5	Some Functions Have Symmetry	F-BF.3 F-IF.C	NA
	6	Symmetry in Equations	F-BF.3 F-IF.8	NA
	7	Expressing Transformations of Functions Algebraically	F-BF.1 F-BF.3 S-ID.6.a	NA
SCALING OUTPUTS AND INPUTS				
	8	Scaling the Outputs	F-BF.1 F-BF.3 S-ID.6.a	NA
	9	Scaling the Inputs	F-BF.3	NA
PUTTING IT ALL TOGETHER				
	10	Combining Functions	F-BF.1.b F-IF.C	NA
	11	Making a Model for Data	F-BF.1.b F-BF.3 F-IF.4 F-LE.B S-ID.6.a	NA
Algebra IIa	8.4	Applying Composite Functions	F-BF.1.b, F-BF.1.c, F-BF.4.b	Materials Engineer
Algebra IIa	6.3	Applying Composite Functions	F-BF.1.c	Audio and Video Technicians

**UNIT 6: TRIGONOMETRIC FUNCTIONS**

P2C	Lesson #	Title	Standard(s)	Career
THE UNIT CIRCLE				
	1	Moving in Circles	F-TF.A F-TF.C	NA
	2	Revisiting Right Triangles	F-TF.2 F-TF.8	NA
Algebra IIb	5.5	Applying Solving Triangles	G-SRT.9 G-SRT.10 G-SRT.11	Machinists
Algebra IIb	5.6	More Applying Solving Triangles	G-SRT.9 G-SRT.10 G-SRT.11	Welders, Cutters, Solderers, and Brazers
	3	The Unit Circle (Part 1)	F-TF.A F-TF.1 F-TF.2 F-TF.8	NA
	4	The Unit Circle (Part 2)	F-TF.A F-TF.1 F-TF.2	NA
Algebra IIb	5.10	Applying the Unit Circle	F-IF.4 F-IF.7.e F-TF.1 F-TF.2 F-TF.3 F-TF.4	Web and Digital Interface Designers
	5	The Pythagorean Identity (Part 1)	F-TF.A F-TF.2 F-TF.8	NA
	6	The Pythagorean Identity (Part 2)	F-TF.2 F-TF.8	NA
	7	Finding Unknown Coordinates on a Circle	F-TF.B F-TF.5	NA
PERIODIC FUNCTIONS				
	8	Rising and Falling	F-IF.4 F-IF.C F-TF.B	NA
	9	Introduction to Trigonometric Functions	F-IF.7 F-TF.A	NA
Algebra IIb	7.6	Applying Trigonometric Equations	F-TF.4 F-TF.5 F-TF.6 F-TF.7	Diagnostic Medical Sonographers
	10	Beyond 2π	F-TF.2 F-TF.B	NA
	11	Extending the Domain of Trigonometric Functions	F-TF.2	NA
	12	Tangent	F-IF.7 F-TF.2	NA
AMPLITUDE AND MIDLINE				
	13	Amplitude and Midline	F-IF.7.e F-TF.5	NA
	14	Transforming Trigonometric Functions	F-IF.7.e F-TF.B	NA
	15	Features of Trigonometric Graphs (Part 1)	F-BF.3 F-IF.4 F-IF.7.e	NA
	16	Features of Trigonometric Graphs (Part 2)	F-IF.7.e F-TF.B F-TF.5	NA
	17	Comparing Transformation	F-BF.3 F-IF.7.e	NA
	18	Modeling Circular Motion	F-IF.4 F-IF.7.e F-TF.1 F-TF.5 N-Q.1	NA
MODELING CIRCULAR MOTIONS				
	19	Beyond Circles	F-IF.7.e F-TF.B F-TF.5	NA

UNIT 7: STATISTICAL INFERENCES

P2C	Lesson #	Title	Standard(s)	Career
STUDY TYPES				
	1	Being Skeptical	S-I1 S-I3 S-I6	NA
	2	Study Types	S-I1 S-I3 S-I6	NA
	3	Randomness in Groups	S-I1 S-I3	NA
Algebra IIa	10.6	Applying Randomness and Bias	S-I1 S-I2 S-I3 S-I4	Lodging Managers
DISTRIBUTIONS				
	4	Describing Distributions	S-ID.1 S-ID.2	NA
	5	Normal Distributions	S-ID.1 S-ID.2 S-ID.4	NA
Algebra IIa	10.4	Applying Normal Distribution	S-I4 S-ID.4	Nurse Practitioners
	6	Areas in Histograms	G-GPE.7 S-ID.1 S-ID.4	NA
	7	Areas under a Normal Curve	S-ID.4	NA
NOT ALL SAMPLES ARE THE SAME (A)				
	8	Not Always Ideal	S-I2	NA
Algebra IIa	9.4	Applying Discrete Probability	S-MD.1 S-MD.2 S-MD.3	Heavy and Tractor-Trailer Truck Drivers
	9	Variability in Samples	S-I4	NA
NOT ALL SAMPLES ARE THE SAME (B)				
	10	Estimating Proportions from Samples	S-I4 S-I6	NA
	11	Reducing Margin of Error	S-I4	NA
	12	Estimating a Population Mean	S-I4	NA
ANALYZING EXPERIMENTAL DATA				
	13	Experimenting	S-I3 S-I5 S-I6	NA
Algebra IIa	10.8	Applying Hypotheses	S-I2 S-I3 S-I5 S-I6	Accountants and Auditors
	14	Using Normal Distributions for Experiment Analysis	S-I5 S-ID.4	NA
	15	Questioning Experimenting	S-I5 S-ID.4	NA
	16	Heart Rates	S-I5	NA

SUPPLEMENTAL P2C LESSONS NOT DIRECTLY TIED TO THE ABOVE LESSONS FOR ADDITIONAL LEARNING OPPORTUNITIES

Algebra IIa	5.9	Solving Quadratic Inequalities in Two Variables	A-SSE.3.a A-REI.7 F-LE.5	Sales Manager
Algebra IIa	4.4	Applying Matrix Multiplication	N-VM.8, N-VM.9	Bioinformatics Scientists
Algebra IIa	4.7	Applying Inverse Matrices	N-VM.10, N-VM.12, A-REI.9, F-BF.4.c	Aircraft Mechanics and Service Technicians
Algebra IIa	4-P	Vector & Matrix Quantities	N-VM.6, N-VM.7, N-VM.8, N-VM.9, N-VM.11, N-VM.12	Web Administrators
Algebra IIb	6.2	Applying Magnitude and Direction of Vectors	N-VM.1 N-VM.2	Traffic Technicians
Algebra IIb	6.6	Applying Scalars	N-VM.5.a N-VM.5.b	Logisticians
Algebra IIb	9.4	Applying Bits, Bytes, and Hexadecimal Numbers	Connections, Representation	Data Administrators
Algebra IIb	10.5	Applying Topological Properties	Communication, Connections, Representation	Industrial Machinery Mechanics
Algebra IIb	11.2	An Introduction to Election Theory	Problem Solving, Reasoning and Proof	Public Relations Specialists
Algebra IIb	11.3	Applying Critical Thinking	Problem Solving, Reasoning and Proof	Educational, Guidance and Career Counselors and Advisors
Algebra IIb	11.7	Applying Cryptography	Problem Solving, Representation	Natural Sciences Managers