

Math Mammoth Grade 8

Alignment to the Common Core Standards

The table below lists each lesson in the two student worktexts, 8-A and 8-B, and next to it the relevant Common Core Standard (CCS). This document applies to the 2024 edition.

Math Mammoth Grade 8-A worktext

Chapter 1: Exponents and Scientific Notation

Lesson	page	Standards
Powers and the Order of Operations	13	6.EE.1
Powers with Negative Bases	16	6.EE.1
Laws of Exponents, Part 1	19	8.EE.1
Zero and Negative Exponents	22	8.EE.1
More on Negative Exponents	25	8.EE.1
Laws of Exponents, Part 2	27	8.EE.1
Laws of Exponents, Part 3	30	8.EE.1
Scientific Notation: Large Numbers	32	8.EE.3
Scientific Notation: Small Numbers	35	8.EE.3
Significant Digits	37	
Using Scientific Notation in Calculations, Part 1	40	8.EE.4
Using Scientific Notation in Calculations, Part 2	43	8.EE.4
Chapter 1 Review	46	8.EE.1 8.EE.3 8.EE.4

Chapter 2: Geometry

Lesson	page	Standards
Geometric Transformations and Congruence, Part 1	51	8.G.1
Geometric Transformations and Congruence, Part 2	55	8.G.1 8.G.2
Translations in the Coordinate Grid	58	8.G.3
Reflections in the Coordinate Grid	61	8.G.3

Chapter 2: Geometry, cont.

Lesson	page	Standards
Translations and Reflections	64	8.G.2
Rotations in the Coordinate Grid	67	8.G.3
Sequences of Transformations	71	8.G.2
Sequences of Transformations, Part 2	74	8.G.2
Dilations	76	
Dilations in the Coordinate Grid	79	8.G.3
Similar Figures, Part 1	82	8.G.4
Similar Figures, Part 2	85	8.G.4
Similar Figures: More Practice	87	8.G.4
Review: Angle Relationships	90	7.G.5
Corresponding Angles	93	8.G.5
More Angle Relationships with Parallel Lines	95	8.G.5
The Angle Sum of a Triangle	97	8.G.5
Exterior Angles of a Triangle	100	8.G.5
Angles in Similar Triangles, Part 1	103	8.G.5
Angles in Similar Triangles, Part 2	105	8.G.5
Volume of Prisms and Cylinders	107	8.G.9
Volume of Pyramids and Cones	109	8.G.9
Volume of Spheres	112	8.G.9
Volume Problems	114	8.G.9
Mixed Review Chapter 2	116	8.EE.1 8.EE.3 8.EE.4
Chapter 2 Review	118	

Chapter 3: Linear Equations

Note: The beginning portion contains several lessons that review 7th grade concepts.

Lesson	page	Standards
Review: Integer Addition and Subtraction	126	7.NS.1
Equations Review, Part 1	129	
The Distributive Property	133	7.EE.1
Equations Review, Part 2	136	8.EE.7.b
Equations Review, Part 3	140	8.EE.7.b
Combining Like Terms	144	8.EE.7.b
Word Problems	147	8.EE.7.b
A Variable on Both Sides	151	8.EE.7.b
Word Problems and More Practice	155	8.EE.7.b
Simplifying Linear Expressions	158	8.EE.7.b
More Practice	161	8.EE.7.b
Age and Coin Word Problems	164	8.EE.7.b
Equations with Fractions 1	167	8.EE.7.b
Equations with Fractions 2	170	8.EE.7.b
Formulas, Part 1	173	8.EE.7.b
Formulas, Part 2	175	8.EE.7.b
More on Equations	177	8.EE.7.a
Percent Word Problems	180	8.EE.7.b
Miscellaneous Problems	182	8.EE.7.b
Mixed Review Chapter 3	184	8.EE.1 8.EE.4 8.G.2 8.G.5 8.G.9
Chapter 3 Review	186	8.EE.7.a 8.EE.7.b

Chapter 4: Introduction to Functions

Note: The standard in parentheses means the lesson is approaching that standard (preparing students for it).

Lesson	page	Standards
Functions	191	8.F.1
Linear Functions and the Rate of Change 1	195	(8.F.3)
Linear Functions and the Rate of Change 2	199	(8.F.3)
Linear Functions as Equations	202	8.F.3
Linear Versus Nonlinear Functions	205	8.F.3
Modeling Linear Relationships	208	8.F.4
Describing Functions 1	212	8.F.5
Describing Functions 2	215	8.F.5
Describing Functions 3	218	8.F.5
Comparing Functions 1	222	8.F.2
Comparing Functions 2	225	8.F.2
Mixed Review Chapter 4	227	8.EE.1 8.EE.4 8.EE.7.a 8.EE.7.b 8.G.9
Chapter 4 Review	230	8.F.1 8.F.2 8.F.3 8.F.4 8.F.5

Math Mammoth Grade 8-B worktext

Chapter 5: Graphing Linear Equations

Note: The standard in parentheses means the lesson is approaching that standard (preparing students for it).

Lesson	page	Standards
Graphing Proportional Relationships 1	13	8.EE.5
Graphing Proportional Relationships 2	16	8.EE.5
Comparing Proportional Relationships	19	8.EE.5
Slope, Part 1	23	(8.EE.6)
Slope, Part 2	27	8.EE.6
Slope, Part 3	30	8.F.4
Slope-Intercept Equation 1	35	8.EE.6
Slope-Intercept Equation 2	39	8.EE.5 8.F.4
Write the Slope-Intercept Equation	42	8.F.3 8.F.4
Horizontal and Vertical Lines	45	8.F.3
The Standard Form	48	
More Practice (optional)	51	8.F.3
Parallel and Perpendicular Lines	53	8.F.3
Mixed Review Chapter 5	56	8.EE.7a 8.EE.7b 8.F.2 8.F.5 8.G.2 8.G.5
Chapter 5 Review	59	8.EE.5 8.EE.6 8.F.3 8.F.4

Chapter 6: Irrational Numbers and the Pythagorean Theorem

Lesson	page	Standards
Square Roots	65	8.NS.1 8.EE.2
Irrational Numbers	69	8.NS.1
Cube Roots and Approximations of Irrational Numbers	73	8.NS.2 8.EE.2
Fractions to Decimals (optional)	77	7.NS.2.d
Decimals to Fractions	79	8.NS.1
Square and Cube Roots as Solutions to Equations	82	8.EE.2
More Equations that Involve Roots	85	
The Pythagorean Theorem	88	8.G.7
Applications of the Pythagorean Theorem 1	93	8.G.7
A Proof of the Pythagorean Theorem and of Its Converse	96	8.G.6
Applications of the Pythagorean Theorem 2	100	8.G.7
Distance Between Points	104	8.G.8
Mixed Review Chapter 6	107	8.EE.4 8.EE.7 8.F.2 8.F.3 8.G.9
Chapter 6 Review	110	8.G.7 8.G.8

Chapter 7: Systems of Linear Equations

Note: The first lesson is for review and preparation, lesson and is optional.

Lesson	page	Standards
Equations with Two Variables	119	
Solving Systems of Equations by Graphing	123	8.EE.8a
Number of Solutions	128	8.EE.8b
Solving Systems of Equations by Substitution	132	8.EE.8b
Applications, Part 1	139	8.EE.8c
The Addition Method, Part 1	143	8.EE.8b
The Addition Method, Part 2	148	8.EE.8b
More Practice	153	8.EE.8b
Applications, Part 2	157	8.EE.8c
Speed, Time, and Distance Problems	160	8.EE.8c
Mixtures and Comparisons	166	8.EE.8c
Mixed Review Chapter 7	171	8.EE.5 8.EE.7a 8.EE.7b 8.EE.8b 8.EE.8c 8.F.3 8.G.4
Chapter 7 Review	175	8.EE.8a 8.EE.8b 8.EE.8c

Chapter 8: Bivariate Data

Lesson	page	Standards
Scatter Plots	183	8.SP.1
Scatter Plot Features and Patterns	186	8.SP.1
Fitting a Line	190	8.SP.2 8.SP.3
Equation of the Trend Line	194	8.SP.2 8.SP.3
Two-Way Tables	199	8.SP.4
Relative Frequencies	202	8.SP.4
Mixed Review Chapter 8	207	8.G.5 8.G.7 8.NS.1 8.EE.2 8.EE.8b 8.EE.8c 8.F.3 8.F.5 8.SP.1 8.SP.2 8.SP.3 8.SP.4
Chapter 8 Review	212	8.SP.1 8.SP.2 8.SP.4