

Math Mammoth Grade 7 Alignment to the Common Core Standards

The table below lists each lesson in the two student worktexts, 7-A and 7-B, and next to it the relevant Common Core Standard (CCS). Some lessons in the curriculum are intended for review of 6th grade topics. In those cases, I have listed the relevant standards from 6th grade.

Chapter 1: The Language of Algebra

Note: The first two lessons are intended for review.

Lesson	page	Standards
The Order of Operations	11	6.EE.1. 6.EE.2. 6.EE.6
Expressions and Equations	15	6.EE.2 6.EE.5 6.EE.6
Properties of the Four Operations	18	7.EE.1
Simplifying Expressions	22	6.EE.2 7.EE.1 7.EE.4
Growing Patterns 1	26	7.EE.2 7.EE.3 7.EE.4
The Distributive Property	29	7.EE.1 7.EE.2 7.EE.3 7.EE.4
Chapter 1 Review	34	7.EE.1 7.EE.3

Chapter 2: Integers

Note: The first lesson is intended for review.

Lesson	page	Standards
Integers	41	6.NS.5 6.NS.6 6.NS.7
Addition and Subtraction on the Number Line	45	7.NS.1
Addition of Integers	49	7.NS.1 7.NS.3
Subtraction of Integers	52	7.NS.1 7.NS.3
Adding or Subtracting Several Integers	56	7.NS.1 7.NS.3
Distance and More Practice	58	7.NS.1 7.NS.3
Multiplying Integers	62	7.NS.2 7.NS.3
Dividing Integers	67	7.NS.2 7.NS.3
Negative Fractions	69	7.NS.2 7.NS.3
The Order of Operations	73	7.NS.1 7.NS.2 7.NS.3
Chapter 2 Mixed Review	75	7.EE.1
Chapter 2 Review	77	7.NS.1 7.NS.2 7.NS.3

Chapter 3: Solving One-Step Equations

Note: The first lesson is intended for review.

Lesson	page	Standards
Solving Equations	82	6.EE.5 6.EE.7 7.EE.4
Addition and Subtraction Equations	89	7.EE.4
Multiplication and Division Equations	93	7.EE.4
Word Problems	97	7.EE.4
Constant Speed	100	7.RP.2.c 7.EE.3 7.EE.4
Chapter 3 Mixed Review	107	7.NS.1 7.NS.2 7.NS.3 7.EE.1
Chapter 3 Review	110	7.EE.3 7.EE.4

Chapter 4: Rational Numbers

Lesson	page	Standards
Rational Numbers	116	7.NS.2.d
Adding and Subtracting Rational Numbers	124	7.NS.1 7.NS.3
Multiply and Divide Rational Numbers 1	130	7.NS.2
Multiply and Divide Rational Numbers 2	134	7.NS.2 7.NS.3
Many Operations with Rational Numbers	141	7.NS.1 7.NS.2 7.NS.3 7.EE.3
Scientific Notation	145	8.EE.4
Equations with Fractions	148	7.EE.3 7.EE.4
Equations with Decimals	153	7.EE.4
Chapter 4 Mixed Review	156	7.EE.4 7.NS.1 7.NS.2 7.NS.3
Chapter 4 Review	158	7.NS.2.d 7.NS.1 7.NS.2 7.NS.3 7.EE.3 7.EE.4

Chapter 5: Equations and Inequalities

Note: This chapter includes topics that exceed the CCS for 7th grade but that are traditionally included in pre-algebra courses, namely the topics of combining like terms and using the distributive property to solve linear equations, graphing, and slope.

Lesson	page	Standards
Two-Step Equations	168	7.EE.4
Two-Step Equations: Practice	173	7.EE.4
Growing Patterns 2	177	7.EE.2 7.EE.4
A Variable on Both Sides	181	8.EE.7
Some Problem Solving	187	7.EE.4
Using the Distributive Property	190	7.EE.4 8.EE.7
Word Problems	196	7.EE.3 7.EE.4
Inequalities	199	7.EE.4
Word Problems and Inequalities	204	6.RP.3 7.EE.4
Graphing	206	8.F.3 8.F.4
An Introduction to Slope	210	8.F.2 8.F.3
Speed, Time and Distance	215	7.RP.2.c 8.EE.5 8.F.5
Chapter 5 Mixed Review	220	7.NS.1 7.NS.2 7.NS.3 7.EE.1
Chapter 5 Review	223	7.EE.4 8.EE.7 8.F.3

Chapter 6: Ratios and Proportions

Note: The first lesson is intended for review.

Lesson	page	Standards
Ratios and Rates	12	6.RP.1 6.RP.3
Solving Problems Using Equivalent Rates	15	7.RP.3
Solving Proportions: Cross Multiplying	17	7.RP.3 7.EE.3
Why Cross-Multiplying Works	23	
Unit Rates	24	7.RP.1 7.RP.2 7.RP.3
Proportional Relationships	29	7.RP.2 8.EE.5
Graphing Proportional Relationships–More Practice	35	7.RP.2 8.EE.5
More on Proportions	37	7.RP.3 7.EE.3
Scaling Figures	41	7.RP.3 7.G.1
Floor Plans	47	7.RP.3 7.G.1 7.NS.3
Maps	51	7.RP.3 7.NS.3
Significant Digits	57	7.RP.3 7.NS.3
Chapter 6 Mixed Review	59	7.NS.1 7.NS.2 7.NS.3 7.EE.4 8.EE.7
Chapter 6 Review	62	7.RP.1 7.RP.2 7.RP.3

Chapter 7: Percent

Note: The first lesson is intended for review.

Lesson	page	Standards
Review: Percent	72	6.RP.3 7.NS.2 7.RP.3
Solving Basic Percentage Problems	75	7.RP.3
Percent Equations	78	7.RP.3 7.EE.1 7.EE.2 7.EE.4
Circle Graphs	83	
Percentage of Change	85	7.RP.3
Percentage of Change: Applications	88	7.RP.3
Comparing Values Using Percentages	92	7.RP.3
Simple Interest	96	7.RP.3
Chapter 7 Mixed Review	102	7.RP.3 7.NS.1 7.NS.3
Chapter 7 Review	105	7.RP.3 7.EE.4

Chapter 8: Geometry

Lesson	page	Standards
Angle Relationships	113	7.G.5
Angles in a Triangle	118	7.G.2
Basic Geometric Constructions	123	7.G.2
More Constructions	129	7.G.2
Drawing Problems	134	7.G.1 7.G.2
Circumference of a Circle	141	7.G.4 8.NS.1
Area of a Circle	144	7.G.4
Proving the Formula for the Area of a Circle	147	7.G.4
Area and Perimeter Problems	149	7.G.6
Surface Area	154	7.RP.3 7.G.6
Conversions Between Customary Units of Area	158	7.RP.3 7.G.6
Conversions Between Metric Units of Area	161	7.G.1 7.G.6
Slicing Three-Dimensional Shapes	164	7.G.3
Volume of Prisms and Cylinders	171	8.G.9
Chapter 8 Mixed Review	175	7.NS.1 7.G.1 7.EE.1 7.RP.2 7.NS.3 7.RP.3
Chapter 8 Review	178	7.G.1 7.G.2 7.G.3 7.G.4 7.G.5 7.G.6

Chapter 9: The Pythagorean Theorem

Note: This chapter exceeds the Common Core Standards for 7th grade. I recommend omitting it if your student(s) will use a curriculum in 8th grade that follows the CCS.

Lesson	page	Standards
Square Roots	189	8.NS.1
Equations That Involve Taking a Square Root	193	8.EE.2
The Pythagorean Theorem	198	8.G.7
The Pythagorean Theorem: Applications	203	8.G.7
A Proof of the Pythagorean Theorem	210	8.G.6
Chapter 9 Mixed Review	211	7.NS.3 7.EE.4 7.RP.3 7.G.2 8.G.9
Chapter 9 Review	214	8.EE.2 8.G.7

Chapter 10: Probability

Lesson	page	Standards
Probability	222	7.SP.5 7.SP.7
Probability Problems from Statistics	225	7.SP.7
Experimental Probability	227	7.SP.6 7.SP.7
Counting the Possibilities	230	7.SP.7 7.SP.8
Using Simulations to Find Probabilities	236	7.SP.8
Probability of Compound Events	242	
Chapter 10 Mixed Review	246	7.RP.3 7.EE.1 7.NS.3 7.G.1 7.G.2 7.G.4 8.G.7
Chapter 10 Review	249	7.SP.6 7.SP.7 7.SP.8

Chapter 11: Statistics

Note: The first lesson is intended for review.

Lesson	page	Standards
Review of Data Analysis	255	6.SP.4 6.SP.5
Random Sampling	260	7.SP.1
Using Random Sampling	264	7.SP.2
Comparing Two Populations	271	7.SP.3
Comparing Two Samples	279	7.SP.4
Chapter 11 Mixed Review	285	7.RP.3 7.NS.3 7.G.1 7.G.2 7.SP.1 7.SP.5 7.SP.7 8.G.9
Chapter 11 Review	289	7.SP.1 7.SP.2 7.SP.3 7.SP.4