Acellus® Essential Math II

INTERNATIONAL ACADEMY OF SCIENCE
Essential Math II Course Curriculum

Unit 1 - Number Sense, Patterns, and Algebraic Thinking		45	Solving Two-Step Equations
1	Describing Patterns	46	Solving Inequalities
2	Variables and Expressions	47	Functions and Equations
3	Powers & Exponents	48	Graphing Functions
4	Order of Operations	**Unit 6 - Ratios, Proportions, Percents**	
5	Equations & Mental Math	49	Ratios
6	Perimeter and Area of Rectangles	50	Rates
Unit 2 - Decimal Operations		51	Slopes
7	Comparing and Ordering Decimals	52	Writing and Solving Proportions
8	Rounding Decimals	53	Solving Proportions by Cross Products
9	Adding & Subtracting Decimals	54	Scale Drawings and Models
10	Multiplying Decimals	55	Percents and Fractions
11	Dividing Decimals	56	Percents and Proportions
12	Multiplying & Dividing by Powers of 10	57	Percents and Decimals
13	Scientific Notation	58	Translating Percent Sentences
14	Measuring in Metric Units	59	Circle Graphs
15	Converting Metric Units	60	Percent of Increase & Decrease
Unit 3 - Number Patterns and Fractions		61	Discounts, Markups, Sales Tax, and Tips
16	Prime Factorization	62	Simple Interest
17	Greatest Common Factor	**Unit 7 - Geometric Figures**	
18	Equivalent Fractions	63	Angles
19	Least Common Multiple	64	Pairs of Angles on Parallel Lines
20	Comparing & Ordering Fractions	65	Triangles
21	Mixed Numbers and Improper Fractions	66	Polygons
22	Fractions and Decimals	67	Sum of Interior Angles - Convex Polygons
23	Adding & Subtracting Fractions	68	Similar and Congruent Polygons
24	Adding & Subtracting Mixed Numbers	69	Using Proportions with Similar Polygons
25	Multiplying Fractions & Mixed Numbers	70	Identifying Transformations
26	Dividing Fractions & Mixed Numbers	71	Line and Rotational Symmetry
27	Length in Customary Units	72	Translations and Reflections
28	Weight in Customary Units	73	Rotations
29	Capacity in Customary Units	**Unit 8 - Measurement, Area, and Volume**	
Unit 4 - Integers		74	Square Roots
30	Comparing and Ordering Integers	75	Approximating Square Roots
31	Adding Integers	76	Pythagorean Theorem
32	Subtracting Integers	77	Area of Parallelograms
33	Multiplying Integers	78	Area of Triangles
34	Dividing Integers	79	Area of Trapezoids
35	Negative Exponents	80	Circumference of a Circle
36	Rational Numbers and Properties	81	Area of a Circle
37	Distributive Property	82	Area of Similar Polygons
38	Graphing on the Coordinate Plane	83	Classifying Solids
Unit 5 - Expressions, Equations, Inequalities, and Functions		84	Sketching Solids
39	Writing Expressions	85	Nets
40	Writing Equations	86	Surface Area of Prisms
41	Simplifying Expressions	87	Surface Area of Cylinders
42	Inverse Operations	88	Volume of Prisms
43	Equations - Addition and Subtraction	89	Volume of Cylinders
44	Equations - Multiplication and Division	90	Volume of Similar Solids

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