



2017-2018 Curriculum Catalog

Mathematics 700

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Mathematics 700 Course Overview

Mathematics 700 is designed to prepare junior-high students for Pre-algebra. This course focuses on strengthening needed skills in problem solving, number sense, and proportional reasoning. It also introduces students to integers, equations, and geometric concepts. Students will begin to see the "big picture" of mathematics and learn how numeric, algebraic, and geometric concepts are woven together to build a foundation for higher mathematical thinking.

By the end of the course, students will be expected to do the following:

- Gain an increased awareness of how math is a life skill.
- Understand how math gives us different ways to model or express the same thing.
- Explore concepts taught in previous math courses, but at higher levels, applying the concepts to real world situations.
- Use proportional reasoning in order to model and solve real world problems.
- Utilize new skills and concepts that will help them in future math courses.

Unit 1: Integers	
Assignments	
1. Course Overview	19. Alternate Quiz 3—Form A: Multiplying and Dividing Integers*
2. Integers on the Number Line	20. Alternate Quiz 3—Form B: Multiplying and Dividing Integers*
3. Comparing and Ordering Integers	21. The Real Number System
4. Absolute Value	22. Real Number Properties
5. Quiz 1: Integers	23. The Distributive Property
6. Alternate Quiz 1—Form A: Integers*	24. Order of Operations
7. Alternate Quiz 1—Form B: Integers*	25. Exponents and the Order of Operations
8. Adding Integers with the Same Sign	26. Performance Task
9. Adding Integers with Different Signs	27. Quiz 4: The Real Number System*
10. Subtracting Integers	28. Alternate Quiz 4—Form A: The Real Number System*
11. Quiz 2: Adding and Subtracting Integers	29. Alternate Quiz 4—Form B: The Real Number System*
12. Alternate Quiz 2—Form A: Adding and Subtracting Integers*	30. Special Project*
13. Alternate Quiz 2—Form B: Adding and Subtracting Integers*	31. Review
14. Multiplying Integers	32. Test
15. Dividing Integers	33. Alternate Test—Form A*
16. Using Integers	34. Alternate Test—Form B*
17. Performance Task	35. Glossary and Credits
18. Quiz 3: Multiplying and Dividing Integers	

Unit 2: Fractions	
Assignments	
Mathematics 700	1. Fractions and Mixed Numbers
	2. Equivalent Fractions
	3. Divisibility Rules and Prime Factorization
	4. Greatest Common Factor and Least Common Multiple
	5. Quiz 1: Working with Fractions
	6. Alternate Quiz 1 - Form A: Working with Fractions*
	7. Alternate Quiz 1 - Form B: Working with Fractions*
	8. Adding and Subtracting Fractions with Like Denominators
	9. Adding and Subtracting Fractions with Unlike Denominators
	10. Reducing Fractions
	11. Performance Task*
	12. Quiz 2: Adding and Subtracting Fractions
	13. Alternate Quiz 2 - Form A: Adding and Subtracting Fractions*
	14. Alternate Quiz 2 - Form B: Adding and Subtracting Fractions*
	15. Comparing and Ordering Fractions
	16. Multiplying Fractions
	17. Dividing Fractions
	18. Performance Task
	19. Quiz 3: Multiplying and Dividing Fractions
	20. Alternate Quiz 3 - Form A: Multiplying and Dividing Fractions*
	21. Alternate Quiz 3 - Form B: Multiplying and Dividing Fractions*
	22. Project: Chef for a Day
	23. Special Project*
	24. Review
	25. Test
	26. Alternate Test - Form A*
	27. Alternate Test - Form B*
	28. Glossary and Credits

Unit 3: Decimals	
Assignments	
Mathematics 700	1. Comparing and Ordering Decimals
	2. Rounding and Estimating Decimals
	3. Adding and Subtracting Decimals
	4. Multiplying and Dividing Decimals
	5. Performance Task*
	6. Quiz 1: Decimals and Their Operations
	7. Alternate Quiz 1 - Form A: Decimals and Their Operations*
	8. Alternate Quiz 1 - Form B: Decimals and Their Operations*
	9. Terminating and Repeating Decimals
	10. Fractions as Decimals
	11. Using Decimals
	12. Performance Task
	13. Scientific Notation
	14. The Metric System
	15. Quiz 2: Applying Decimals
	16. Alternate Quiz 2 - Form A: Applying Decimals*
	17. Alternate Quiz 2 - Form B: Applying Decimals*
	18. Special Project*
	19. Review
	20. Test
	21. Alternate Test - Form A*
	22. Alternate Test - Form B*
	23. Glossary and Credits

Unit 4: Patterns and Equations	
Assignments	
Mathematics 700	1. Working with Variables and Expressions
	2. Adding and Subtracting Algebraic Expressions
	3. Expanding and Factoring Variable Expressions
	4. Evaluating Expressions
	5. Using Formulas to Solve Problems
	6. Performance Task
	7. Quiz 1: Variable Expressions
	8. Alternate Quiz 1—Form A: Variable Expressions*
	9. Alternate Quiz 1—Form B: Variable Expressions*
	10. Identifying Number Patterns
	11. Describing Number Patterns
	12. Identifying Functions
	13. Identifying Function Rules
	14. Quiz 2: Patterns and Functions
	15. Alternate Quiz 2—Form A: Patterns and Functions*
	16. Alternate Quiz 2—Form B: Patterns and Functions*
	17. Translating Word Sentences
	18. Solving Equations Using Mental Math
	19. Solving Equations Using Addition and Subtraction
	20. Solving Equations Using Multiplication and Division
21. Quiz 3: Solving Equations	
22. Alternate Quiz 3—Form A: Solving Equations*	
23. Alternate Quiz 3—Form B: Solving Equations*	
24. Solving Two-Step Equations	
25. Working with Inequalities	
26. Solving One-Step Inequalities	
27. Solving Two-Step Inequalities	
28. Performance Task	
29. Quiz 4: Equations and Inequalities	
30. Alternate Quiz 4—Form A: Equations and Inequalities*	
31. Alternate Quiz 4—Form B: Equations and Inequalities*	
32. Special Project*	
33. Review	
34. Test	
35. Alternate Test—Form A*	
36. Alternate Test—Form B *	
37. Glossary and Credits	

Unit 5: Ratios and Proportions	
Assignments	
Mathematics 700	1. Ratios
	2. Rates
	3. Proportions
	4. Quiz 1: Ratios, Rates, and Proportions
	5. Alternate Quiz 1: Form A: Ratios, Rates, and Proportions*
	6. Alternate Quiz 1: Form B: Ratios, Rates, and Proportions*
	7. Converting Customary Units
	8. Converting Metric Units
	9. Similarity
	10. Scale Drawings
	11. Performance Task
	12. Quiz 2: Using Proportions
	13. Alternate Quiz 2: Form A: Using Proportions*
	14. Alternate Quiz 2: Form B: Using Proportions*
	15. Converting Between Fractions, Decimals, and Percents
	16. Percent of a Number
	17. Percent of Change
	18. Solving Percent Problems Using Proportions
	19. Solving Percent Problems Using Equations
	20. Performance Task
	21. Quiz 3: Fractions, Decimals, and Percents
	22. Alternate Quiz 3: Form A: Fractions, Decimals, and Percents*
	23. Alternate Quiz 3: Form B: Fractions, Decimals, and Percents*
	24. Special Project*
	25. Review
	26. Test
	27. Alternate Test: Form A*
	28. Alternate Test: Form B*
	29. Glossary and Credits

Unit 6: Probability and Graphing	
Assignments	
1. Theoretical Probability	12. Direct Variation
2. Experimental Probability	13. Performance Task
3. Sample Space	14. Quiz 2: Functions
4. Performance Task	15. Alternate Quiz 2: Form A: Functions*
5. Independent and Dependent Events	16. Alternate Quiz 2: Form B: Functions*
6. Quiz 1: Probability	17. Special Project*
7. Alternate Quiz 1: Form A: Probability*	18. Review
8. Alternate Quiz 1: Form B: Probability*	19. Test
9. Graphing Ordered Pairs	20. Alternate Test: Form A*
10. Graphing Linear Equations	21. Alternate Test: Form B*
11. Slope	22. Glossary and Credits

Unit 7: Data Analysis	
Assignments	
1. Collecting Data	20. Circle Graphs
2. Determining Mean, Median, and Mode	21. Performance Task
3. Using Mean, Median, and Mode	22. Scatter Plots
4. Using Range	23. Quiz 3: Graphing Data and Making Predictions
5. Mean Absolute Deviation	24. Alternate Quiz 3: Form A: Graphing Data and Making Predictions*
6. Quiz 1: Describing Data	25. Alternate Quiz 3: Form B: Graphing Data and Making Predictions*
7. Alternate Quiz 1: Form A: Describing Data*	26. Financial Assets and Liabilities
8. Alternate Quiz 1: Form B: Describing Data*	27. Personal Financial Skills
9. Dot Plots	28. Quiz 4: Financial Skills
10. Box-and-Whisker Plots	29. Alternate Quiz 4: Form A: Financial Skills
11. Performance Task	30. Alternate Quiz 4: Form B: Financial Skills
12. Stem-and-Leaf Plots	31. Special Project*
13. Histograms	32. Review
14. Other Graphs	33. Test
15. Quiz 2: Organizing Data	34. Alternate Test: Form A*
16. Alternate Quiz 2: Form A: Organizing Data*	35. Alternate Test: Form B*
17. Alternate Quiz 2: Form B: Organizing Data*	36. Glossary and Credits
18. Line Graphs	
19. Bar Graphs	

Unit 8: Geometry	
Assignments	
Mathematics 700	1. Introduction to Geometry
	2. Special Pairs of Angles
	3. Polygons
	4. Circles
	5. Performance Task
	6. Quiz 1: Basic Geometry
	7. Alternate Quiz 1: Form A: Basic Geometry*
	8. Alternate Quiz 1: Form B: Basic Geometry*
	9. Project: Inscribed Polygons
	10. Triangles
	11. Quadrilaterals
	12. Drawing Triangles and Quadrilaterals
	13. Similar Polygons
	14. Performance Task
	15. Quiz 2: Classifying Polygons
	16. Alternate Quiz 2: Form A: Classifying Polygons*
	17. Alternate Quiz 2: Form B: Classifying Polygons*
	18. Symmetry
	19. Reflections
	20. Translations
	21. Compound Transformations
	22. Quiz 3: Transformations
	23. Alternate Quiz 3: Form A: Transformations*
	24. Alternate Quiz 3: Form B: Transformations*
	25. Special Project*
	26. Review
	27. Test
	28. Alternate Test: Form A*
	29. Alternate Test: Form B*
	30. Glossary and Credits

Unit 9: Measurement and Area	
Assignments	
Mathematics 700	1. Perimeter
	2. Circumference
	3. Composite Figures
	4. Performance Task
	5. Quiz 1: Perimeter
	6. Alternate Quiz 1: Form A: Perimeter*
	7. Alternate Quiz 1: Form B: Perimeter*
	8. Area of Parallelograms
	9. Area of Triangles and Trapezoids
	10. Area of Circles
	11. Area of Composite Figures
	12. Dimension Changes
	13. Quiz 2: Area
	14. Alternate Quiz 2: Form A: Area*
	15. Alternate Quiz 2: Form B: Area*
	16. Squares and Square Roots
	17. Performance Task
	18. The Pythagorean Theorem
	19. Applying the Pythagorean Theorem
	20. Quiz 3: The Pythagorean Theorem
	21. Alternate Quiz 3: Form A: The Pythagorean Theorem*
	22. Alternate Quiz 3: Form B: The Pythagorean Theorem*
	23. Special Project*
	24. Review
	25. Test
	26. Alternate Test: Form A*
	27. Alternate Test: Form B*
	28. Glossary and Credits

Unit 10: Surface Area and Volume	
Assignments	
Mathematics 700	1. Classifying and Identifying Solids
	2. Nets and Cross Sections
	3. Surface Area and Volume
	4. Quiz 1: Solids
	5. Alternate Quiz 1: Form A: Solids*
	6. Alternate Quiz 1: Form B: Solids*
	7. Surface Area of Rectangular Prisms
	8. Volume of Rectangular Prisms
	9. Performance Task
	10. Surface Area of Triangular Prisms
	11. Volume of Triangular Prisms
	12. Quiz 2: Prisms
	13. Alternate Quiz 2: Form A: Prisms*
	14. Alternate Quiz 2: Form B: Prisms*
15. Surface Area of Cylinders	
16. Volume of Cylinders	
17. Dimension Changes	
18. Performance Task	
19. Quiz 3: Cylinders	
20. Alternate Quiz 3: Form A: Cylinders*	
21. Alternate Quiz 3: Form B: Cylinders*	
22. Special Project*	
23. Review	
24. Test	
25. Alternate Test: Form A*	
26. Alternate Test: Form B*	
27. Glossary and Credits	

Unit 11: Course Review and Exam	
Assignments	
Mathematics 700	1. Review 1
	2. Review 2
	3. Final Exam
	4. Alternate Final Exam - Form A*
	5. Alternate Final Exam - Form B*
	6. Performance Task 1*
	7. Performance Task 2*
	8. Performance Task 3*
	9. Performance Task 4*

Unit 12: End of Course Exam	
Assignments	
Math 700	1. Exam*
	2. Alternate Exam - Form A*
	3. Alternate Exam - Form B*

(*) Indicates alternative assignment