



# monarch

2017 - 2018 Curriculum Catalog

Mathematics 300

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## Mathematics 300 Course Overview

Math 300 is a full-year elementary math course focusing on number skills and numerical literacy. In it, students will gain solid experience with number theory and operations, learning how to apply these in measurement situations. This course also integrates geometric concepts and skills throughout the units, as well as introducing students to statistical concepts.

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

- Understand place value and know how to compare and order numbers.
- Perform addition and subtraction, carrying and borrowing on whole numbers.
- Know basic multiplication facts.
- Understand representations in fraction and mixed number forms.
- Understand concepts of likelihood and basic probability.
- Understand concepts of shape, symmetry, and perimeter.
- Understand measurement concepts, including time and temperature.
- Understand representations using decimals and money.

Unit 1: Whole Numbers		
Assignments		
Mathematics 300	1. Course Overview	16. Quiz 3
	2. Patterns: Digits and Number Words	17. Adding with Carrying
	3. Place Value	18. Cardinal and Ordinal Numbers
	4. Single-Digit Addition	19. Standard Measurement for Time
	5. Single-Digit Subtraction	20. Calendar Time
	6. Addition Problems	21. Quiz 4
	7. Subtraction Problems	22. Unit Concept Review 1
	8. Quiz 1	23. Unit Concept Review 2
	9. Numbers on a Number Line	24. Practice: Addition and Subtraction
	10. Pattern for Expanded Notation	25. Quiz 5
	11. Adding Multi-digit Numbers	26. Special Project*
	12. Quiz 2	27. Review Game
	13. Subtracting 3-Digit Numbers	28. Test
	14. Measurement	29. Alternate Test*
	15. Operation Symbols	30. Reference

Unit 2: Number Patterns		
Assignments		
Mathematics 300	1. Family of Facts	14. Money
	2. Adding Ones, Tens, and Hundreds	15. Review: Borrowing
	3. Subtracting Ones, Tens, and Hundreds	16. Addition: Checking Answers
	4. Quiz 1	17. Subtraction: Checking Answers
	5. Place Value and Number Words	18. Quiz 4
	6. Addition with Carrying	19. Review: Number Order and Place Value
	7. Skip Counting and Number Words	20. Review: Addition and Subtraction Facts
	8. Quiz 2	21. Quiz 5
	9. Skip Counting and Addition with Carrying	22. Special Project*
	10. Fractions	23. Review Game
	11. Subtracting with Borrowing	24. Test
	12. Quiz 3	25. Alternate Test*
	13. Shapes	26. Reference

Unit 3: Whole Numbers and Fractions	
Assignments	
1. Fact Families, Mental Math, and Addition	15. Fractions - Continued
2. Column Addition	16. Addition Practice
3. Addition: With and Without Carrying	17. Time: AM and PM
4. Quiz 1	18. Quiz 4
5. Measurements: Weight and Volume	19. Review: Addition, Subtraction, and Money
6. Fact Family, Place Value, and Number Order	20. Review: Story Problems, Lines, Shapes, and Measurement
7. Checking Addition Problems	21. Quiz 5
8. More Checking Addition Problems	22. Special Project*
9. Quiz 2	23. Review Game
10. Subtraction with Borrowing	24. Test
11. Number Sentences and Symbols	25. Alternate Test*
12. Subtraction with Borrowing and Checking	26. Reference
13. Quiz 3	
14. Fractions	

Unit 4: Place Value	
Assignments	
1. Numbers to Thousands Place	13. Roman Numerals
2. Addition and Skip Counting	14. Review: Subtraction with Borrowing
3. Quiz 1	15. Quiz 4
4. Rounding and Estimation	16. Review: Fractions
5. Subtraction with Borrowing	17. Review: Word Problems and Money
6. Measurement	18. Quiz 5
7. Quiz 2	19. Special Project*
8. Number Words and Place Value	20. Review Game
9. Number Patterns	21. Test
10. Addition and Subtraction: Horizontal Form	22. Alternate Test*
11. Quiz 3	23. Reference
12. Adding and Subtracting Fractions	

Unit 5: Measurement, Shapes, and Review	
Assignments	
1. Operation Symbols and Number Sense	14. Odd And Even Numbers
2. Multi-Digit Addition And Subtraction	15. Review: Checking Addition
3. Cardinal and Ordinal Numbers	16. Review: Checking Subtraction
4. Quiz 1	17. Review: Roman Numerals and Fractions
5. Number Patterns Using Place Value	18. Quiz 4
6. Measuring Temperature	19. Review: Multiple Concepts
7. Quiz 2	20. Review: Story Problems
8. Operation Symbols	21. Quiz 5
9. Shapes and Symmetry	22. Special Project*
10. Rounding and Estimating	23. Review Game
11. Finding Perimeter	24. Test
12. Quiz 3	25. Alternate Test*
13. Multi-Digit Addition and Subtraction	26. Reference

Unit 6: Multiplication, Addition, and Subtraction		
Assignments		
Mathematics 300	1. Multi-Digit Addition	13. Lines, Angles, and Temperature
	2. Skip Counting and Multiplication	14. Review: Addition and Subtraction
	3. Review: Telling Time	15. Quiz 4
	4. Quiz 1	16. Story Problems
	5. Review: Subtraction	17. Multiple Concept Review
	6. Perimeter and Area	18. Review: Calendar
	7. Review: Fractions	19. Quiz 5
	8. Quiz 2	20. Special Project*
	9. Addition and Equivalent Fractions	21. Review Game
	10. Money Computation and Roman Numerals	22. Test
	11. Quiz 3	23. Alternate Test*
	12. Multiplication	24. Reference

Unit 7: Operations, Likelihood, and Probability		
Assignments		
Mathematics 300	1. Review: Place Value	13. Quiz 3
	2. Review: Subtraction with Borrowing	14. Review: Money
	3. Multiplication Facts (1)	15. Multiplication Facts (2)
	4. Quiz 1	16. Quiz 4
	5. Measurement	17. Multiple Concept Review
	6. Practicing Subtraction with Borrowing	18. Quiz 5
	7. Mixed Numbers	19. Special Project*
	8. Quiz 2	20. Review Game
	9. Review: Expanded Notation and Roman Numerals	21. Test
	10. Probability and Likelihood	22. Alternate Test*
	11. Math Facts	23. Reference
	12. Symmetry	

Unit 8: Measurement, Fractions, and Decimals		
Assignments		
Mathematics 300	1. Shapes, Measurement, and Addition	12. Multiple Concept Practice
	2. Time and Measurement	13. Review: Addition With Checking
	3. Quiz 1	14. Quiz 4
	4. Fractions, Odd and Even Number Patterns	15. Word Problems
	5. Decimals	16. Using Graphs
	6. Money Problems	17. Quiz 5
	7. Quiz 2	18. Special Project*
	8. Fractions, Place Value, and Measurement	19. Review Game
	9. Directions	20. Test
	10. Quiz 3	21. Alternate Test*
	11. Multiplication Facts	22. Reference

Unit 9: Review: Multiple Concepts	
Assignments	
Mathematics 300	1. How Numbers Work
	2. Math Facts
	3. Add/Subtract with Checking
	4. Multiplication
	5. Quiz 1
	6. Equivalent Fractions
	7. Reading and Writing Fractions
	8. Fraction Computation
	9. Quiz 2
	10. Measure: Length, Perimeter, and Area
	11. Measure: Money, Time, and Temperature
	12. Measure: Weight and Volume
13. Quiz 3	
14. Symmetry and Shapes	
15. Roman Numerals	
16. Quiz 4	
17. Likelihood and Graphing	
18. Problem Solving	
19. Quiz 5	
20. Special Project*	
21. Review Game	
22. Test	
23. Alternate Test*	
24. Reference	

Unit 10: Basic Math Review	
Assignments	
Mathematics 300	1. Review: Rounding and Estimation
	2. Review: Adding Fractions
	3. Review: Subtracting Fractions
	4. Review: Multiplication Facts
	5. Quiz 1
	6. Review: Mental Math, Graphs, Likelihood
	7. Review: Addition and Subtraction Computation
	8. Quiz 2
	9. Review: Fractions and Decimals
	10. Review: Add and Subtract Mixed Numbers and Fractions
	11. Review: Finding Missing Numbers
	12. Quiz 3
13. Review: Shapes and Symmetry	
14. Review: Roman Numerals	
15. Review: Measurement	
16. Quiz 4	
17. Review: Number Symbols and Grouping	
18. Review: Perimeter and Area	
19. Review: Problem Solving	
20. Quiz 5	
21. Special Project*	
22. Review Game	
23. Test	
24. Alternate Test*	
25. Reference	

(\*) Indicates alternative assignment