

## US\_Math 4

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### 1. Operations and Algebraic Thinking 4.OA

#### 1.1 Multiplication of Whole Numbers 4.OA

- 1. Tutorial: Multiplication
- 2. 1101-Activity: Multiplication by 2 through 9
- 3. 1102-MOPS: Factors and Products
- 4. 1103-MOPS: Multiplication Sentence
- 5. 1104-MOPS: Interpreting Multiplication as Comparison
- 6. 1105-MOPS: Word Problems Involving Comparison
- 7. Tutorial : Learning More on Multiplication

8. 1106-MOPS : Multiplication by 1-digit number without Regrouping
9. Tutorial: Multiplication by 10, 100 and 1000
10. Tutorial : Multiplication by 2-Digit Number without Regrouping
11. 1107-MOPS : Multiplication by 2-Digit Number without Regrouping
12. Tutorial : Multiplication with Regrouping
13. 1108(a)-MOPS : Multiplication with Regrouping
14. 1108(b)-MOPS: Multiplication
15. Tutorial : Rounding Numbers
16. 1109-MOPS: Rounding Off Whole Numbers
17. Tutorial: Properties of Multiplication
18. 1110-MOPS: Multiplication and Estimation
19. Tutorial: Multiply One and Two Digit Numbers with Vedic Method
20. Tutorial: Multiplication Using Area/Array Model
21. 1111-MOPS: Multiplication Using Special Method

### **1.2 Division of Whole Numbers 4.OA**

1. Tutorial: Division
2. Tutorial: Division
3. Tutorial: Division by 9
4. 1201-MOPS: Division
5. Tutorial: Division using Rectangular Section and Expanded Form
6. 1202-MOPS: Division By Special Method
7. 1203-MOPS: Division By Area Model
8. Tutorial: Division by 10, 100 and 1,000
9. 1204-MOPS: Multiplying or Dividing Whole Numbers by Powers of 10
10. 1205-MOPS: Problem Solving (Addition, Subtraction, Multiplication, Division)

### **1.3 Factors and Multiples 4.OA**

1. Tutorial: Factors
2. 1301-MOPS: Factors
3. Tutorial: Multiples
4. 1302-MOPS: Multiples
5. Tutorial: Even and Odd Numbers
6. 1303-MOPS: Even and Odd Numbers
7. Tutorial: Common Factors and Multiples
8. 1304-MOPS: Common Factors and Common Multiples

## **2. Number and Operations in Base Ten 4.NBT**

### **2.1 Concept of Place Value 4.NBT**

1. Tutorial: Place Value
2. 2101-MOPS: Digits and Place Values of Whole Numbers - Int'l System
3. 2102-MOPS: Reading and Writing Multi-digit Whole Number

### **2.2 Expanded Form and Comparison 4.NBT**

1. Tutorial: Expanded Form
2. 2201-MOPS: Expanded Notation Int'l system

3. Tutorial: Comparing And Ordering Whole Numbers
4. 2202-MOPS: Order Relation

### **2.3 Add and Subtract Whole Numbers 4.NBT**

1. Tutorial: Addition of Numbers
2. Tutorial: Estimation
3. Tutorial: Subtraction
4. 2301-MOPS: Addition and Estimation
5. 2302-MOPS: Subtraction and Estimation
6. 2303-MOPS: Estimation
7. 2304-MOPS: Addition and Subtraction of Money

## **3. Number and Operations - Fractions 4.NF**

### **3.1 Understanding Fractions 4.NF**

1. Tutorial: Parts of Fraction-Numerator, Fraction bar, and Denominator
2. Tutorial: Representing Fractions
3. 3101-MOPS: Exploring Fractions
4. Tutorial: Comparing and Arranging Fractions (Like or Unlike)
5. 3102-MOPS: Comparison of Fractions

### **3.2 Equivalent Fractions 4.NF**

1. Tutorial: Equivalent Fractions
2. 3201-MOPS: Equivalent Fractions
3. 3202-MOPS: Equivalent Fraction - II
4. 3203-MOPS: Find the Missing Term in Equivalent Fractions

### **3.3 Addition and Subtraction of Fractions 4.NF**

1. Tutorial: Addition of Like Fractions
2. 3301-MOPS: Addition of Like Fractions
3. Tutorial: Addition of Unlike Fraction
4. 3302-MOPS: Addition of Two Unlike Fractions
5. 3303-MOPS: Addition of Three Unlike Fractions
6. Tutorial: Decomposing a Fraction
7. 3304-MOPS: Decomposing a Fraction
8. Tutorial: Subtraction of Like Fractions
9. 3305-MOPS: Subtraction of Like Fractions
10. Tutorial: Subtraction of Unlike Fractions
11. 3306-MOPS: Subtraction of Like and Unlike Fractions
12. 3307-MOPS: Problem Solving-Like Fractions (Addition and Subtraction)
13. 3308-MOPS: Problem Solving-Unlike Fractions (Addition and Subtraction)

### **3.4 Mixed Numbers and Improper Fractions 4.NF**

1. Tutorial 1: Type of Fractions
2. 3401-MOPS: Types of Fractions
3. Tutorial: Converting Improper Fractions to Mixed Fractions
4. 3402-MOPS: Converting Improper Fractions to Mixed Numbers
5. Tutorial: Fraction as a Collection

6. 3403-Mops: Fraction as a Collection
7. 3404-MOPS: Fraction of a Whole Number

### **3.5 Decimals 4.NF**

1. Tutorial 1: Decimal Fractions
2. Tutorial 2: Decimals and Whole Numbers
3. 3501-MOPS: Digit and Place Value of Decimals International
4. Tutorial 1: Expanded Form of Decimals
5. Tutorial 2: Converting Fractions into Decimals
6. 3502-MOPS: Conversion (Fraction-decimal), Short Form and Expanded Notation
7. Tutorial 1: Equivalent Decimals
8. Tutorial 2: Comparing and Ordering Decimals
9. 3503-MOPS: Conversion (Unlike to Like), Comparing and Arranging Decimals
10. Tutorial: Rounding Decimals
11. 3504-MOPS: Rounding Off Decimals

## **4. Measurement and Data 4.MD**

### **4.1 Metric and Customary Units of Length 4.MD**

1. Tutorial: Measurement
2. Tutorial: Metric Measures of Length
3. 4101-MOPS: Metric Measures of Length
4. Tutorial: Customary Units of Length
5. 4102-MOPS: Customary Units of Length (Conversion and Word Problem)

### **4.2 Metric and Customary Units of Weight 4.MD**

1. Tutorial: Metric Measures of Weight
2. 4201-MOPS: Metric Measures of Weight
3. Tutorial: Customary Units of Weight
4. 4202-MOPS: Customary Units of Weight (Conversion and Word Problems)

### **4.3 Metric and Customary Units of Capacity 4.MD**

1. Tutorial: Metric Measures of Capacity
2. 4301-MOPS: Metric Measures of Capacity
3. Tutorial: Customary Units of Capacity
4. 4302-MOPS: Customary Units of Capacity (Conversions and Word Problems)

### **4.4 Conversion between Metric and Customary Systems 4.MD**

1. Tutorial: Conversion between Metric and Customary Systems
2. 4401-MOPS: Conversions between Metric and English Systems

### **4.5 Addition and Subtraction of Measurements 4.MD**

1. Tutorial: Addition and Subtraction of Metric Units of Length
2. Tutorial: Addition and Subtraction of Metric Unit of Weight
3. Tutorial: Addition and Subtraction of Metric Units of Capacity
4. 4501-MOPS: Addition and Subtraction of Measurements

### **4.6 Represent and Interpret Data 4.MD**

1. Tutorial: Data: Recording and Organization
2. 4601-MOPS: Reading and Interpreting Data

3. Tutorial: Bar Graphs
4. 4602-MOPS: Reading Bar Graphs

#### **4.7 Geometric Measurement: Angles 4.MD**

1. Tutorial: Concepts of Angles
2. Tutorial: Constructing an Angle with Protractor
3. Tutorial: Measuring and Classifying Angles
4. 4701-MOPS: Concepts of Angles
5. 4702-MOPS: Angles
6. 4703-MOPS: Measuring and Classifying Angles

### **5. Geometry 4.G**

#### **5.1 Parallel and Perpendicular Lines 4.G**

1. Tutorial: Line, Line Segment, Ray and Plane
2. 5101-MOPS: Plane, Point, Line segment, Line, Ray
3. Tutorial: Studying Lines
4. 5102-MOPS: Parallel, Perpendicular and Intersecting Lines

#### **5.2 Area and Perimeter 4.G**

1. Tutorial: Perimeter and Area
2. 5201-MOPS: Perimeter and Area of Rectangles and Squares
3. 5202-Mops: Studying Area
4. 5203-MOPS: Word Problems on Area and Perimeter
5. 5204-MOPS: Word Problems: Perimeter and Area of Composite Figures
6. 5205-MOPS: Word Problems: Perimeter and Area of Polygons

#### **5.3 Symmetry 4.G**

1. Tutorial: Understanding Symmetry
2. 5301-MOPS: Understanding Symmetry
3. Tutorial: Number of Lines of Symmetry
4. 5302-MOPS: Lines of Symmetry