# PR\_Math 4

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# PR\_Math 4

## 1. Operations and Algebraic Thinking 4.OA

## 1.1 Multiplication of Whole Numbers 4.0A

- 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
- 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