

List of Concepts for Pre-Pre-Algebra

Before Pre-Pre-Algebra

- ▶ Factors of a Number
- ▶ Multiplication and Division with Mental Math
- ▶ Multi-Digit Multiplication Review
- ▶ Long Division Review

Connecting Arithmetic to Algebra

- ▶ Numbers to Words
- ▶ Rounding Large Numbers
- ▶ Ordering Large Numbers
- ▶ Reading Exponents
- ▶ Expanded Form (Exponents)
- ▶ Evaluating Exponents
- ▶ Estimation
- ▶ Order of Operations (PEMDAS)
- ▶ Patterns
- ▶ Evaluating Expressions
- ▶ Translating Expressions
- ▶ Solving Equations

Number Theory and Introduction to Fractions

- ▶ Divisibility
- ▶ Prime Factorization
- ▶ LCM
- ▶ Equivalent Fraction Diagrams
- ▶ Fraction of a Number Problems
- ▶ GCF
- ▶ Equivalent Fractions
- ▶ Reducing Fractions
- ▶ Mixed Numbers to Improper Fractions
- ▶ Improper Fractions to Mixed Numbers
- ▶ Comparing Fractions

Adding and Subtracting Fractions

- ▶ Adding/Subtracting Fractions (Like Denominators)
- ▶ Adding/Subtracting Fractions (Unlike Denominators)
- ▶ Solving Adding/Subtracting Equations with Fractions
- ▶ Rounding Mixed Numbers
- ▶ Adding Mixed Numbers
- ▶ Subtracting Mixed Numbers

Multiplying and Dividing with Fractions

- ▶ Multiplying with Fractions
- ▶ Cross Cancelling
- ▶ Dividing with Fractions
- ▶ Dividing Whole Numbers, Mixed Numbers, and Fractions
- ▶ Solving Multiplication/Division Equations with Fractions

Decimals

- ▶ Reading and Writing Decimals
- ▶ Rounding Decimals
- ▶ Comparing Decimals
- ▶ Ordering Decimals
- ▶ Multiplying by Powers of 10
- ▶ Scientific Notation
- ▶ Adding and Subtracting Decimals
- ▶ Dividing by Powers of 10
- ▶ Multiplying with Decimals
- ▶ Dividing Decimals by Whole Numbers
- ▶ Dividing Decimals by Decimals
- ▶ Bigger or Smaller Result?
- ▶ Converting Between Fractions and Decimals
- ▶ Solving Equations with Decimals

Systems of Measurement, Perimeter, and Area

- ▶ Perimeter
- ▶ Metric Concepts and Conversions
- ▶ Standard System Units and Unit Multipliers
- ▶ Standard System Conversions
- ▶ Converting Between Metric and Standard Systems
- ▶ Area Concept Questions
- ▶ Areas of Rectangles and Squares
- ▶ Area of a Triangle
- ▶ Circumference
- ▶ Area of a Circle

Polygons

- ▶ Lines, Rays and Segments
- ▶ Measuring and Classifying Angles
- ▶ Classifying Triangles by Angle
- ▶ Sum of Angles in a Triangle
- ▶ Classifying Triangles by Sides
- ▶ Is It a Triangle?
- ▶ Polygons
- ▶ Types of Quadrilaterals
- ▶ Symmetry
- ▶ Reflection
- ▶ Rotations and Translations
- ▶ Tessellations

Integers and the Coordinate Plane

- ▶ Integers
- ▶ Comparing Integers
- ▶ Adding Negative Numbers
- ▶ Adding the Opposite
- ▶ Subtracting Negative Numbers
- ▶ Multiplying with Negatives
- ▶ Dividing with Negatives

- ▶ The Coordinate Plane and Plotting Points
- ▶ Translating and Reflecting Using the Coordinate Plane

Rates, Ratios, Proportions and Percents

- ▶ Ratios
- ▶ Rates
- ▶ Using Unit Rates
- ▶ Proportions
- ▶ Solving Proportions
- ▶ Properties of Similar Figures
- ▶ Using Similar Figures
- ▶ Percents
- ▶ Percent/Decimal and Percent/Fraction Conversions
- ▶ Percent of a Number Problems

Surface Area and Volume

- ▶ Solids and Their Properties
- ▶ Surface Area Concept Questions
- ▶ Calculating Surface Area
- ▶ Surface Area Formulas
- ▶ Surface Area of a Cylinder
- ▶ Volume Concept Questions
- ▶ Volume of a Rectangular Prism
- ▶ Volume of a Cylinder
- ▶ Volume of a Triangular Prism

Probability

- ▶ Probability Basics
- ▶ Geometric Probability
- ▶ The Counting Principle
- ▶ Compound Probability -- Independent Events (With Replacement)
- ▶ Compound Probability -- Dependent Events (Without Replacement)
- ▶ Compound Probability -- Mixed Problems

Charts, Graphs, and Data

- ▶ Median and Mode
- ▶ Mean