

Math 026 Detailed Course Content:

F1 Whole Numbers

F1.1 Whole Numbers 1

Concept 1: Adding and Subtracting

Comparing Whole Numbers, Place Value, Reading "Large Numbers", Adding Whole Numbers, Subtracting Whole Numbers, Solving an Equation.

Concept 2: Multiplying and Dividing

Multiplying Whole Numbers, Multiplying by a Power of Ten, Dividing Whole Numbers, Solving and Equation, Factors and Factoring, Prime Factorization.

Concept 3: Rounding and Divisibility

Rounding to the Nearest Ten, Hundred, Thousand, etc. Divisibility by 2,3,5, and 10.

F1.2 Whole Numbers 2

Concept 1: Exponential Notation

Exponential Notation, Identifying Exponential Notation, The value of an Exponential Expression, Square Numbers and Square Roots, Estimating Square Roots, Cube and Cube Roots.

Concept 2: Order of Operations

Grouping Symbols, Order of Operations, The Commutative Property, The Associative Property, The Distributive Property, Working With Variables.

F2 Proportional Reasoning 1

F2.1 Fractions 1

Concept 1: Equivalent Fractions

Finding Equivalent Fractions, Determining Whether Two Fractions are Equivalent, Simplifying Fractions, Finding the Greatest Common Factor (GCF).

Concept 2: Multiplying and Dividing

Writing a Mixed Numeral as an Improper Fraction, Writing an Improper Fraction as a Mixed Numeral, Multiplying Fractions, Finding the Reciprocal of a Fraction, Dividing Fractions, Solving Some Equations that Contain Fractions.

F2.2 Fractions 2

Concept 1: Common Denominators

Finding a Common Denominator of two or More Fractions, Finding the Least Common Denominator (LCD) of Two or More Fractions, Using a Common Denominator to Order Fractions,

Concept 2: Adding and Subtracting

Adding or Subtracting Fractions that Have the Same Denominator, Adding or Subtracting Fractions that Have Different Denominators, Using the Properties of Fractions and the Order of Operations to Add, Subtract, Multiply and Divide Fractions, Adding or Subtracting Fractional Terms that Contain a Letter such as "x" or "y", Solving Some Equations that Contain Fractions.

F2.3 Decimals 1

Concept 1: Decimal Notation

Decimal Notation, The Place Value of Digits in a Decimal Number, How to Read and Write Decimal

Number, How to Read and Write Decimal Numbers, How to Order Decimal Numbers, How to Round Decimal Numbers.

Concept 2: Converting

Decimals and Fractions on the Number Line, How to Write Some Decimal Numbers as Fractions, How to Write Some Fractions as Decimals.

F2.4 Decimals 2

Concept 1: Adding and Subtracting

Adding Decimal Numbers, Subtracting Decimal Numbers, Adding and Subtracting Decimal Terms that Contain a Letter Such as "x" or "y", Solving Some Equations that Contain Decimal Numbers.

Concept 2: Multiplying and Dividing

Multiplying Decimal Numbers, Dividing Decimal Numbers, Solving Some Equations that Contain Decimal Numbers, Using the Properties of Real Numbers and the Order of Operations to Add, Subtract, Multiply, and Divide Decimal Numbers.

F3 Proportional Reasoning 2

F3.1 Ratio and Proportion

Concept 1: Ratios

How to Use Ratio to Compare Two Quantities, The Definition of Equivalent Ratios, How to Use Ratio to Represent a Rate

Concept 2 Proportions

How to Solve a Proportion, How to Set Up a Proportion, How to Set Up a Proportion with Similar Triangles

F3.2 Percent

Concept 1: Percent Definition

The Definition of Percent

Concept 2: Converting

Writing a Percent as a Decimal, Writing a Decimal as a Percent, Writing a Percent as a Fraction, Writing a Fraction as a Percent, Finding Percent of Decrease, Finding Percent of Increase

Concept 3: Solving Percent Problems

Solving Some Percent Problems

F4 Signed Numbers

F4.1 Signed Numbers 1

Concept 1: Adding

Ordering Signed Numbers, Absolute Value, Adding Numbers With the Same Sign, Adding Two Numbers With Different Signs, Adding More Than Two Signed Numbers

Concept 2: Subtracting

The Opposite of a Number, Writing a Subtraction as an Equivalent Addition, Subtracting Signed Numbers, Subtracting More Than Two Signed Numbers, Solving an Equation

F4.2 Signed Numbers 2

Concept 1: Multiplying and Dividing

Multiplying Two Numbers with Different Signs, Multiplying Two Numbers with the Same Sign,

Multiplying More Than Two Signed Numbers, Dividing Two Numbers with Different Signs, Dividing Two Numbers with the Same Sign, Solving an Equation

Concept 2: Combining Operations

Exponential Notation, Order of Operations, The Commutative Property, The Associative Property, The Distributive Property, Working with Variables

******* C Level -- Pass all of the above at 80% or better to get a C**

F5 Geometry

F5.1 Geometry 1

Concept 1: Geometric Figures

Identifying Points, Lines, Line Segments, and Rays, The Definition of a Polygon, Measuring an Angle, Classifying Angles as Acute, Right, Obtuse, or Straight, Complimentary, Supplementary, Adjacent, and Vertical Angles

F5.2 Geometry 2

Concept 1: Area and Perimeter

Perimeter of a Polygon, Area of a Rectangle, Parallelograms, Triangles, Trapezoids, Circles

F6 Interpreting Data

F6.1 Units of Measurement

Concept 1: US/English Units

Units of Length, Time, Weight, and Volume, Changing Units, Adding with Units, Subtracting with Units

F6.2 Interpreting Graphs

Concept 1: Data and Graphs

Pictographs, Bar Graphs, Circle Graphs, Line Graphs.

F6.3 Introduction to Statistics

Concept 1: Statistical Measures

Finding the Mean of a Data Set, Finding the Median of a Data Set, Finding the Mode of a Data Set. (Skip: Finding the Range of a Data Set, Upper/Lower Quartile of a Data Set, Making a Box and Whisker Plot)

******* B Level -- Pass all of the above at 80% or better to get a B**

F5 Geometry

F5.2 Geometry 2

Concept 2: Surface Area and Volume

Surface Area of a Rectangular Prism, Volume of a Rectangular Prism, Surface Area of a Cylinder, Volume of a Cylinder, Cones, Spheres

F5.3 Geometry 3

Concept 1: Triangles and Parallelograms

The Sum of the Angle Measures of a Triangle, Congruent Triangles, Isosceles Triangles and Equilateral Triangles, Right Triangles and the Pythagorean, Parallel Lines and Parallelograms

Concept 2: Similar Polygons

Recognizing Similar Polygons, Writing a Similarity Statement, Shortcuts to Determining Similar Triangles, Measures of Corresponding Angles of Similar Triangles, Lengths of Corresponding Sides of Similar Triangles

F6 Interpreting Data

F6.1 Units of Measurement

Concept 2: Metric System

Changing Units Within the Metric System, Changing from Degrees Celsius to Degrees Fahrenheit, Changing from Degrees Fahrenheit to Degrees Celsius, Changing between U.S. and Metric Units

******* A Level -- Pass all of the above at 80% or better to get a A**