Department: Cocalico Connections Course: MS Pre-Algebra Grade Level: 6

Outline for the course:

Numeric Operations

Numbers and Properties

Prime Numbers and Prime Factorization Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you use factors to write a number as a product?

Summary

Review and connect what you learned.

Assignment

Practice finding the prime factorization of a number.

Factors and Multiples Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you use the greatest common factor and the least common multiple to solve problems?

Summary

Review and connect what you learned.

Assignment

Practice solving problems using the GCF.

The Distributive Property Guided Notes

Warm-Up

Get ready for the lesson.

<u>Instruction</u>

What is the distributive property, and how can you use it to write equivalent expressions?

Summary

Review and connect what you learned.

Assignment

Solve problems using the distributive property, and write about the solutions.

Variable and Expressions

Variable and Expressions

Numerical Expressions with Exponents Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

What are powers and exponents?

Summary

Review and connect what you learned.

Assignment

Practice writing and evaluating powers.

Quiz Answers

Expressions with Unknowns Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you represent a quantity that is unknown?

<u>Summary</u>

Review and connect what you learned.

<u>Assignment</u>

Explore unknown quantities with algebra tiles.

Assignment

Practice writing expressions involving unknowns.

Quiz Answers

Expressions to Represent Multiplication and Division Problems Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you represent multiplication and division expressions with unknowns?

Summary

Review and connect what you learned.

Assignment

Solve and write about representing multiplication and division in algebra.

Quiz Answers

Writing and Evaluating Expressions Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you evaluate an algebraic expression?

Summary

Review and connect what you learned.

Assignment

Practice writing and evaluating algebraic expressions.

Expressions with More Than One Operation Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you represent expressions with more than one operation?

Summary

Review and connect what you learned.

Assignment

Practice writing and evaluating algebraic expressions with more than one operation.

Quiz Answers

Expressions with and without Parentheses Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you represent algebraic expressions with and without parentheses?

Summary

Review and connect what you learned.

Assignment

Practice writing and evaluating algebraic expressions with and without parentheses.

Quiz Answers

Working with Formulas Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How are variables used in real-world applications?

Summary

Review and connect what you learned.

Assignment

Practice using math and science formulas to solve real-world problems.

Quiz Answers

Equivalent Expressions Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you use the properties of operations to write equivalent expressions?

Summary

Review and connect what you learned.

Assignment

Practice writing and evaluating equivalent expressions.

Equivalent Expressions and the Distributive Property Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you use the distributive property to write equivalent expressions?

Summary

Review and connect what you learned.

Assignment

Practice writing and evaluating equivalent expressions.

Quiz Answers

Determining Equivalent Expressions Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you determine if two expressions are equivalent?

Summary

Review and connect what you learned.

Assignment

Practice writing and proving equivalent expressions.

Quiz Answers

Geometry

Area

Area of Parallelograms Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you find the area of parallelograms?

Summary

Review and connect what you learned.

Assignment

Solve problems involving the area of parallelograms and write about the solutions.

Quiz Answers

Area of Triangles Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you find the area of a triangle?

Summary

Review and connect what you learned.

Assignment

Practice finding the area of triangles.

Quiz Answers

Area of Special Quadrilaterals Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you find the area of special quadrilaterals?

Summary

Review and connect what you learned.

Assignment

Practice breaking special quadrilaterals into rectangles and triangles.

Quiz Answers

Area of Irregular Figures Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you find the area of irregular figures?

Summary

Review and connect what you learned.

Assignment

Explore breaking irregular figures into parallelograms, rectangles, and triangles.

Assignment

Practice breaking irregular figures into parallelograms, rectangles, and triangles.

Quiz Answers

Shapes with Fractional Side Lengths Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you find the area of a shape with fractional or decimal side lengths?

Summary

Review and connect what you learned.

Assignment

Practice calculating the areas of shapes with fractional or decimal dimensions.

Quiz Answers

Surface Area and Volume

Three-Dimensional Figures Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you represent three-dimensional figures using nets?

Summary

Review and connect what you learned.

<u>Assignment</u>

Practice describing three-dimensional figures.

Quiz Answers

Surface Area of Prisms Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you find the surface area of prisms?

Summary

Review and connect what you learned.

Assignment

Find the area of a face of a rectangular prism.

Quiz Answers

Surface Area of Rectangular Pyramids Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you find the surface area of square and rectangular pyramids?

Summary

Review and connect what you learned.

Assignment

Practice describing the net of a pyramid.

Quiz Answers

Application of Surface Area in Context Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you solve real-world problems involving the surface area of prisms and pyramids?

Summary

Review and connect what you learned.

Assignment

Practice choosing the net for a given situation.

Quiz Answers

Exploring Volume of a Rectangular Prism Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you use unit cubes to find the volume of a rectangular prism?

Summary

Review and connect what you learned.

Assignment

Practice finding volumes of prisms.

Quiz Answers

Finding a Formula for the Volume of a Rectangular Prism Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you use formulas to find the volume of a rectangular prism?

Summary

Review and connect what you learned.

Assignment

Practice finding volume of a rectangular prism using formulas.

Quiz Answers

Solving Volume Problems with Formulas Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you apply the volume formula for rectangular prisms?

Summary

Review and connect what you learned.

Assignment

Practice calculating the volume of a rectangular prism using formulas.

Quiz Answers

Solving Surface Area and Volume Problems Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you distinguish between surface area and volume problems?

Summary

Review and connect what you learned.

<u>Assignment</u>

Solve gardening problems involving surface area and volume, and write about the solutions.

Quiz Answers

Understanding Ratios and Rates

Understanding Ratios and Rates

Describing Part-to-Part Relationships Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you compare parts of a set without using the size of the whole?

Summary

Review and connect what you learned.

Assignment

Practice using ratios to describe a relationship between quantities.

Quiz Answers

Using Ratio Notation Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can ratios be written mathematically?

Summary

Review and connect what you learned.

Assignment

Solve and write about ratios.

Quiz Answers

Equivalent Ratios Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you use a ratio table to identify patterns and find equivalent ratios?

Summary

Review and connect what you learned.

Assignment

Practice solving problems about equivalent ratios.

Quiz Answers

Understanding Unit Rates Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

What are unit rates, and how are they used?

Summary

Review and connect what you learned.

Assignment

Solve and write with unit rates.

Comparing Ratios Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you compare ratios?

<u>Summary</u>

Review and connect what you learned.

Assignment

Practice problems comparing ratios.

Quiz Answers

Ratios in Real-World Situations Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How are ratios compared in real-world situations?

Summarv

Review and connect what you learned.

Assignment

Practice comparing real-world ratios.

Quiz Answers

Applying Ratios and Rates

Applying Ratios and Rates

<u>Understanding Speed</u> <u>Guided Notes</u>

Warm-Up

Get ready for the lesson.

Instruction

How do you determine speed?

Assignment

Explore speed as a rate.

Instruction

How do you determine speed?

Summary

Review and connect what you learned.

Assignment

Practice solving problems involving speed.

Quiz Answers

Unit Pricing Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you use unit rates to solve pricing problems?

Summary

Review and connect what you learned.

<u>Assignment</u>

Solve and write about unit price problems.

Quiz Answers

Other Rate Problems Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you use unit rates to solve real-world problems?

Summary

Review and connect what you learned.

Assignment

Practice problems involving unit rates.

Quiz Answers

Percent

Percent

Understanding Percent Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

What is a percent?

Assignment

Explore modeling percents with a grid.

Instruction

What is a percent?

Summary

Review and connect what you learned.

Assignment

Practice solving problems involving percents.

Quiz Answers

Fraction-Decimal-Percent Equivalents Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you convert among fractions, decimals, and percents?

Summary

Review and connect what you learned.

Assignment

Practice creating equivalent fractions, decimals, and percents.

Quiz Answers

Finding Friendly Percentages Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you use friendly percents?

Summary

Review and connect what you learned.

Assignment

Solve and write about friendly percents.

Quiz Answers

Using Multiplication to Find Percents Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you use multiplication to find any percent of a number?

Summary

Review and connect what you learned.

Assignment

Solve and write about using multiplication to find any percent of a number.

Quiz Answers

Using Equivalent Ratios to Find Percents Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you use equivalent ratios to find the percent of a number?

Summary

Review and connect what you learned.

Assignment

Solve and write about using equivalent ratios to find the percent of a number.

Quiz Answers

Using Equivalent Ratios to Find a Whole Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you use equivalent ratios to find the whole given the part and the percent?

Summary

Review and connect what you learned.

Assignment

Practice using equivalent ratios to find a whole.

Quiz Answers

Operations with Integers

Operations with Integers

Integers and the Number Line Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How are integers used to represent real-world situations?

Summary

Review and connect what you learned.

Assignment

Practice representing integers.

Quiz Answers

Using Properties of Operations Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you use properties of operations to evaluate expressions?

Summary

Review and connect what you learned.

Assignment

Solve a problem about planning a field trip, and write about your solution.

Assignment

Practice using the properties of operations.

Quiz Answers

Adding Integers Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you add integers in real-world situations?

Summary

Review and connect what you learned.

Assignment

Solve problems by adding integers and write about the solutions.

Assignment

Practice adding integers.

Subtracting Integers Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you subtract integers in real-world situations?

Assignment

Investigate the distance between two integers.

Instruction

How can you subtract integers in real-world situations?

Summary

Review and connect what you learned.

Assignment

Subtract integers.

<u>Assignment</u>

Solve problems about a lemonade stand, and write about the solutions.

Quiz Answers

Multiplying Integers Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you multiply integers?

Summary

Review and connect what you learned.

Assignment

Practice multiplying integers.

Quiz Answers

<u>Dividing Integers</u> <u>Guided Notes</u>

Warm-Up

Get ready for the lesson.

Instruction

How can you divide integers?

Summary

Review and connect what you learned.

<u>Assignment</u>

Practice dividing integers.

Assignment

Practice finding the signs of quotients.

Quiz Answers

Operations with Integers Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you simplify integer expressions that contain more than one operation?

Summary

Review and connect what you learned.

Assignment

Practice using the order of operations.

Quiz Answers

Solving Problems Involving Integers Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you solve real-world problems involving integers?

<u>Summary</u>

Review and connect what you learned.

<u>Assignment</u>

Write and evaluate expressions involving integers.

Assignment

Practice solving problems using integers.

Quiz Answers

Absolute Value Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you describe a number's distance from zero?

Summary

Review and connect what you learned.

Assignment

Find absolute value in stock price fluctuation.

Quiz Answers

Relationships on the Coordinate Plane

Relationships on the Coordinate Plane

The Coordinate Plane Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you describe a location on the coordinate plane?

Summary

Review and connect what you learned.

Assignment

Practice identifying the parts of a coordinate plane.

Quiz Answers

Plotting Points in the Four Quadrants Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do the signs of the coordinates affect the position of a point in the coordinate plane?

Summary

Review and connect what you learned.

Assignment

Practice working with all four quadrants of the coordinate plane.

Quiz Answers

Fractional Coordinates Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you plot points with fractional and decimal coordinates?

Summary

Review and connect what you learned.

<u>Assignment</u>

Practice working with fractional coordinates.

Quiz Answers

Distance between Two Points Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you find the distance between two points in the coordinate plane?

Summary

Review and connect what you learned.

Assignment

Solve for the distance between points and write about the process.

Quiz Answers

Polygons in the Coordinate Plane Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you find dimensions of polygons on a coordinate plane?

Summary

Review and connect what you learned.

Assignment

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Explore graphing polygons in the coordinate plane.

Assignment

Practice drawing polygons in the coordinate plane given coordinates for the vertices.

Quiz Answers

Finding Area on a Coordinate Plane Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you find the area of a rectangle on a coordinate plane?

Summary

Review and connect what you learned.

Assignment

Practice finding the areas of rectangles on a coordinate plane.

Quiz Answers

Equations and Inequalities

Equations

Writing Equations Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you translate words into equations?

Summary

Review and connect what you learned.

Assignment

Solve problems involving equations and write about the solutions.

Assignment

Practice writing equations from sentences.

Quiz Answers

Addition and Subtraction Equations Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you solve one-step addition and subtraction equations?

Summary

Review and connect what you learned.

<u>Assignment</u>

Solve problems involving addition and subtraction equations and write about the solutions.

Assignment

Practice solving addition and subtraction equations.

Multiplication and Division Equations Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you solve one-step multiplication and division equations?

<u>Summary</u>

Review and connect what you learned.

Assignment

Practice solving equations.

Quiz Answers

Equations in the Real World Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you use equations to solve real-world problems?

Summarv

Review and connect what you learned.

Assignment

Practice using equations to solve real-world problems.

Quiz Answers

Inequalities

Writing Inequalities Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you write inequalities?

<u>Summary</u>

Review and connect what you learned.

Assignment

Practice writing and interpreting inequalities.

Quiz Answers

Graphing Inequalities Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you graph an inequality?

Summary

Review and connect what you learned.

Assignment

Practice relating inequalities to their graphs.

Assignment

Practice writing and graphing inequalities.

Quiz Answers

Addition and Subtraction Inequalities Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you solve addition and subtraction inequalities?

Summary

Review and connect what you learned.

Assignment

Solve problems involving inequalities and write about the solutions.

Assignment

Practice solving problems involving addition and subtraction inequalities.

Quiz Answers

Multiplication and Division Inequalities Guided Notes

Warm-Up

Get ready for the lesson.

Assignment

Explore properties of inequalities.

Instruction

How can you use multiplication and division to solve an inequality?

Summary

Review and connect what you learned.

Assignment

Practice solving inequalities.

Quiz Answers

Inequalities in the Real World Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can inequalities be used to solve real-world problems?

Summary

Review and connect what you learned.

<u>Assignment</u>

Practice solving real-world problems involving inequalities.

<u>Assignment</u>

Solve real-world problems involving inequalities and write about the solutions.

Quiz Answers

Statistics

Data Distributions and Measurement

Plotting Data on a Dot Plot Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you represent data visually using a dot plot?

Summary

Review and connect what you learned.

Assignment

Solve problems involving statistical questions and dot plots, and write about the results.

Quiz Answers

Describing Data on Dot Plots Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you describe data on a dot plot?

Summary

Review and connect what you learned.

Assignment

Practice describing data in dot plots.

Quiz Answers

Representing Data Sets with Histograms Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can a histogram help you represent a large data set?

<u>Summary</u>

Review and connect what you learned.

<u>Assignment</u>

Explore how to represent data sets with histograms.

Assignment

Practice using histograms to display data.

Quiz Answers

Finding the Mean Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you represent a data set with a single "typical" value?

Summary

Review and connect what you learned.

Assignment

Practice calculating the mean of a data set.

Quiz Answers

Comparing Mean and Median Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How does mean compare to median?

Summary

Review and connect what you learned.

Assignment

Practice using the mean and median to describe and compare data sets.

Quiz Answers

Range and Interquartile Range Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you describe data with range and interquartile range?

Summary

Review and connect what you learned.

Assignment

Practice understanding how the range and interquartile range describe data.

Quiz Answers

Data Analysis

Summarizing Data Sets with Statistics Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you use statistics to summarize data sets?

Summary

Review and connect what you learned.

Assignment

Practice finding statistics for data sets.

Quiz Answers

Box Plots Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do box plots describe data sets?

Summary

Review and connect what you learned.

Assignment

Practice identifying the values needed to create a box plot.

Quiz Answers

Mean Absolute Deviation Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

What does mean absolute deviation tell you about a set of data?

Summarv

Review and connect what you learned.

Assignment

Practice solving problems involving absolute deviation.

Quiz Answers

Rational Numbers

Operations with Decimals and Fractions

Adding and Subtracting Decimals Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How are decimals added and subtracted?

Summary

Review and connect what you learned.

Assignment

Practice adding and subtracting decimals.

Quiz Answers

Multiplying Decimals Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you find the product of positive and negative decimals?

Summary

Review and connect what you learned.

Assignment

Practice multiplying positive and negative decimals.

Assignment

Solve and write about multiplying decimals.

Dividing Decimals Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you find the quotient of positive and negative decimals?

Summary

Review and connect what you learned.

Assignment

Practice dividing decimals.

Quiz Answers

Solving Problems Involving Decimals Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you perform multiple operations on decimals?

Summary

Review and connect what you learned.

Assignment

Practice working with decimal expressions.

Quiz Answers

Adding and Subtracting Fractions Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you add and subtract positive and negative fractions?

Assignment

Explore adding and subtracting fractions.

Instruction

How do you add and subtract positive and negative fractions?

Summary

Review and connect what you learned.

Assignment

Practice adding and subtracting fractions.

Quiz Answers

Multiplying Fractions Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you multiply positive and negative fractions?

Summary

Review and connect what you learned.

Assignment

Solve problems involving multiplying fractions and write about the solutions.

Assignment

Practice multiplying fractions.

Quiz Answers

Dividing Fractions Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How do you divide positive and negative fractions?

Summary

Review and connect what you learned.

<u>Assignment</u>

Practice dividing fractions.

Quiz Answers

Solving Problems Involving Rational Numbers Guided Notes

Warm-Up

Get ready for the lesson.

Instruction

How can you use the order of operations to solve real-world problems involving rational numbers?

Summary

Review and connect what you learned.

Assignment

Practice operations with rational numbers.

Assignment

Solve a real-world problem and write about the solution.

Quiz Answers

% of Course Time: Self-paced, to cover all topics in the outline from above

Textbooks & Supplemental Materials: Edgenuity lessons, supplemented by Cocalico Teachers of Record

Assessments: Edgenuity guizzes and tests, performance tasks

Standards Addressed: Contact the Online Learning Facilitator for a supplemental document from Edgenuity outlining any applicable PA Standards address in the course topics. Note that for some courses, there are no PA Standards which may exist.



Eagle P.A.C.T. Course Connections:

Online Learning courses help to prepare students for the diverse ways in which they will learn outside of school. The self-paced, independent nature of virtual courses also helps to develop important skills such as self-advocacy, time management, organization, study skills, and self-discipline. Such skills are needed for a successful future.