

Math Foundations I offers a structured remediation solution based on the NCTM Curricular Focal Points and is designed to expedite student progress in acquiring 3rd- to 5th-grade skills. The course is appropriate for use as remediation for students in grades 6 to 12. When used in combination, Math Foundations I and Math Foundations II (covering grades 6 to 8) effectively remediate computational skills and conceptual understanding needed to undertake high school-level math courses with confidence.

Math Foundations I empowers students to progress at their optimum pace through over 80 semester hours of interactive instruction and assessment spanning 3rd- to 5th-grade math skills. Carefully paced, guided instruction is accompanied by interactive practice that is engaging and accessible. Formative assessments help students to understand areas of weakness and improve performance, while summative assessments chart progress and skill development. Early in the course, students develop general strategies for honing their problem-solving skills. Subsequent units provide a problem-solving strand that asks students to practice applying specific math skills to a variety of real-world contexts.

The content is based on the National Council of Teachers of Math (NCTM) April 2006 publication, Curricular Focal Points for Prekindergarten through Grade 8 Mathematics: A Quest for Coherence, and is aligned with state standards.

Length: Two Semesters

UNIT 1: BASIC NUMBER CONCEPTS

LESSON 1: WHOLE NUMBERS

Study: Whole Numbers

Review the learning objectives and key concepts covered in this unit. Includes Think About It printable essay questions.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Creation of Numbers

A brief history of the development of number systems in various cultures through time

Duration: 0 hrs 10 mins

Quiz: Whole Numbers

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 2: READING AND WRITING WHOLE NUMBERS

Study: Reading and Writing Whole Numbers

Place value, naming whole numbers, lumping large numbers, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Numeric Systems

Provides examples of numeric systems in other cultures, such as Hindu, Roman, Arabic, Mayan, and Egyptian systems

Duration: 0 hrs 10 mins

Quiz: Reading and Writing Whole Numbers

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 3: ODD AND EVEN NUMBERS

Study: Odd and Even Numbers

Dividing into even groups, counting by twos, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Odd and Even Numbers

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 4: USING ODD AND EVEN NUMBERS

Study: Using Odd and Even Numbers

Adding and subtracting like and unlike numbers and the sums and differences, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Using Odd and Even Numbers

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 5: COUNTING BY 2'S, 3'S, 4'S, 5'S AND 10'S

Study: Counting by 2's, 3's, 4's, 5's and 10's

Using the number line to count, skip counting, sample problems.

Duration:

0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Counting by 2's, 3's, 4's, 5's and 10's

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 6: NUMBER PATTERNS

Study: Number Patterns

Patterns in everyday life, patterns in numbers, repeating sequences, finding the missing number, using patterns to predict, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Number Patterns

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 7: PUTTING NUMBERS IN ORDER

Study: Putting Numbers in Order

Ordering numbers on the number line, using place value, greater than and less than symbols, sample problems.

Duration: 0 hrs 40 mins

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Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Putting Numbers in Order

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 8: IDENTIFYING GREATER THAN AND LESS THAN**Study: Identifying Greater than and Less than**

Comparing numbers--comparing digits, comparing numbers of equal place value, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Identifying Greater than and Less than

Explore comparing numbers and digits

*Duration: 0 hrs 25 mins Scoring:
10 points*

LESSON 9: INTRODUCTION TO NUMBER LINES AND INEQUALITIES**Study: Introduction to Number Lines and Inequalities**

Building a number line--spacing, units, equations and inequalities, reading mathematical sentences, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Introduction to Number Lines and Inequalities

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 10: PLACE VALUE THROUGH A THOUSAND

Study: Place Value Through a Thousand

Grouping and counting by tens, hundreds, thousands, reading place value right to left, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Place Value Scale Tool

Online tool to explore the properties of our base-ten numbering system up through the thousands place

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Place Value Through a Thousand

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 11: PLACE VALUE BEYOND A THOUSAND

Study: Place Value Beyond a Thousand

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Place Value Scale Tool

see above

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Place Value Beyond a Thousand

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 12: STANDARD, EXPANDED AND WORD FORM

Study: Standard, Expanded and Word Form

Writing numbers in three different forms using place value and periods, sample problem.

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Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Standard, Expanded and Word Form

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 13: ORDINAL NUMBERS

Study: Ordinal Numbers

Counting with cardinals, naming and ordering with ordinals, sample problems.

Duration: 0 hrs

40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Ordinal Numbers

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 14: WRAP-UP

Study: Review Exercise

Duration: 0 hrs 10 mins

Test (CS): Understanding Whole Numbers

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Odd and Even Numbers

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Number and Counting Patterns

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Comparing Whole Numbers I

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Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Comparing Whole Numbers II

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Writing Numbers and Understanding Place Value

Duration: 0 hrs 40 mins Scoring: 30 points

Test (TS): Basic Number Concepts

Duration: 0 hrs 30 mins Scoring: 50 points

LESSON 15: DIAGNOSTIC

Diagnostic: Basic Number Concepts

Duration: 0 hrs 40 mins Scoring: 30 points

UNIT 2: ADVANCED NUMBER CONCEPTS

LESSON 1: PROPERTIES OF ADDITION

Study: Properties of Addition

Commutative and associative properties, using the properties to solve addition (but NOT subtraction) problems, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Properties of Addition

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 2: PROPERTIES OF MULTIPLICATION

Study: Properties of Multiplication

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Commutative and associative properties, using the properties to solve multiplication (but NOT division) problems, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Properties of Multiplication

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 3: ROUNDING TO THE 10'S, 100'S AND 1,000'S

Study: Rounding to the 10's, 100's and 1,000's

Rounding and estimating, inexact results, using the number line and place value to round numbers to the thousands place, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Rounding to the 10's, 100's and 1,000's

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 4: ROUNDING TO THE 10,000'S, 100,000'S AND 1,000,000'S

Study: Rounding to the 10,000's, 100,000's and 1,000,000's

Using place value to round numbers to the millions, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Rounding to the 10,000's, 100,000's and 1,000,000's

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 5: GROUPING WITH PARENTHESES

Study: Grouping with Parentheses

Grouping to define order of operations, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Grouping With Parentheses

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 6: ROUNDING WITH A NUMBER LINE

Study: Rounding with a Number Line

Rules for rounding to the nearest ten, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Rounding with a Number Line

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 7: PRIME NUMBERS

Study: Prime Numbers

Number factors, definition of a prime number, using a rectangle to find primes, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

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Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Prime Factorization Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Prime Numbers

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 8: INVERSE OPERATIONS

Study: Inverse Operations

Actions that undo other actions, using the number line to show how addition and subtraction, multiplication and division, reverse each other, exception of zero in division, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Codes through History

Exploration and examples of codes throughout history, from the ancient Egyptians, through the time of Maty Queen of Scots, the two world wars, and up to the present computers.

Duration: 0 hrs 10 mins

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Inverse Operations

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 9: EXPONENTS

Study: Exponents

Review of factors and products, exponents as repeated factors, function of bases and exponents, converting between exponential and standard form, reading exponential expressions, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Exponents

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 10: SQUARE NUMBERS

Study: Square Numbers

Building squares, multiplying sides, squares as numbers with identical factors

Duration: 0 hrs

40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Tile Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Square Numbers

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 11: ROMAN NUMERALS

Study: Roman Numerals

Arabic v. other numbers systems through history, symbols for Roman numerals, rules for finding values of Roman numerals.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Roman Numeral Converter

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Naming the Olympic Games

Duration: 0 hrs 10 mins

Study: History of the Olympics

Numbers to the left of zero on the number line, definition of integers, sign and values of negative integers, sample problems.

Duration: 0 hrs 10 mins

Study: Flash Cards 1

Duration: 0 hrs 10 mins

Study: Flash Cards 2

Duration: 0 hrs 10 mins

Study: Flash Cards 3

Duration: 0 hrs 10 mins

Study: Flash Cards 4

Duration: 0 hrs 10 mins

Quiz: Roman Numerals

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 12: NEGATIVE NUMBERS**Study: Negative Numbers**

Numbers to the left of zero on the number line, definition of integers, sign and values of negative integers, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Negative Numbers

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 13: WRAP-UP**Study: Review Exercise**

Duration: 0 hrs 10 mins

Test (CS): Properties

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Rounding to 1000's

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Rounding to 1,000,000's

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Prime Numbers

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Square Numbers and Exponents

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Roman Numerals

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Integers

Duration: 0 hrs 30 mins Scoring: 30 points

Test (TS): Advanced Number Concepts

Duration: 0 hrs 30 mins Scoring: 50 points

LESSON 14: DIAGNOSTIC

Diagnostic: Advanced Number Concepts

Duration: 0 hrs 40 mins Scoring: 30 points

UNIT 3: ADDITION AND SUBTRACTION

LESSON 1: ADDING WHOLE NUMBERS

Study: Adding Whole Numbers

Parts of an addition sentence, adding on the number line, a table of addition facts to 1-9

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Frog Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Adding Whole Numbers

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 2: ADDITION FACTS WITH TABLE**Study: Addition Facts with Table**

Counting v. adding, memorizing the addition table 1-9, flashcard practice.

Duration: 0

hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Addition Table Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Addition Facts with Table

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 3: COLUMN ADDITION

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Study: Column Addition

Lining up by place value, adding more than two numbers, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Counting Tools

Examples of counting tools through time and across cultures, including tally sticks, tokens, and the abacus, Babbage's mechanical calculator, and modern computers.

Duration: 0 hrs 10 mins

Quiz: Column Addition

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 4: ADDITION WITH REGROUPING**Study: Addition with Regrouping**

Regrouping by place value, carrying numbers, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards 1

Duration: 0 hrs 10 mins

Study: Flash Cards 2

Duration: 0 hrs 10 mins

Study: Flash Cards 3

Duration: 0 hrs 10 mins

Quiz: Addition with Regrouping

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 5: HORIZONTAL ADDITION

Study: Horizontal Addition

Mental math, addition shortcuts, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Horizontal Addition

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 6: SUBTRACTING WHOLE NUMBERS

Study: Subtracting Whole Numbers

Nine eggs take away two eggs, parts of a subtraction sentence, using the number line to subtract, a subtraction table 1-9, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Subtracting Whole Numbers

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 7: SUBTRACTION FACTS WITH TABLE

Study: Subtraction Facts with Table

Counting backwards v. subtracting, memorizing the subtraction table 1-9, flashcard practice.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Subtraction Facts with Table

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 8: COLUMN SUBTRACTION

Study: Column Subtraction

Lining up by place value, subtracting large numbers, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Column Subtraction

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 9: SUBTRACTION REGROUPING FOR TWO-DIGIT NUMBERS

Study: Subtraction Regrouping for Two-Digit Numbers

Regrouping by place value, borrowing numbers, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Subtraction Regrouping for Two-Digit Numbers

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 10: SUBTRACTION REGROUPING FOR THREE-DIGIT NUMBERS

Study: Subtraction Regrouping for Three-Digit Numbers

Regrouping in the hundreds place, regrouping more than once, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Subtraction Regrouping for Three-Digit Numbers

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 11: ADDING AND SUBTRACTING ZERO

Study: Adding and Subtracting Zero

Zero does not change the sum or difference, sample problem.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: The "Invention" of Zero

A brief history of the first discovery of zero in the Hindu numeric system and its adoption in the Arabic system.

Duration: 0 hrs 10 mins

Quiz: Adding and Subtracting Zero

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 12: ADDITION AND SUBTRACTION FACT FAMILIES

Study: Addition and Subtraction Fact Families

Building addition and subtraction sentences with fact families, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Addition and Subtraction Fact Families

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 13: ESTIMATING SUMS**Study: Estimating Sums**

Words that denote estimation, rounding to estimate sums, using estimation to test for reasonableness, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Estimating Sums

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 14: ESTIMATING DIFFERENCES**Study: Estimating Differences**

Applying rounding to estimate numbers in subtraction problems and estimating differences

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Estimating Differences

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 15: ADDITION AND SUBTRACTION WITH VARIABLES

Study: Addition and Subtraction with Variables

Unknown numbers, definition of variable.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Addition and Subtraction with Variables

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 16: WRAP-UP

Study: Review Exercise

Duration: 0 hrs 10 mins

Test (CS): Basic Addition and Subtraction I

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Basic Addition and Subtraction II

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Basic Addition and Subtraction III

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Column Addition and Subtraction

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Estimation

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Addition and Subtraction with Regrouping I

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Addition and Subtraction with Regrouping II

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Fact Families and Variables

Duration: 0 hrs 40 mins Scoring: 30 points

Test (TS): Addition and Subtraction

Duration: 0 hrs 30 mins Scoring: 50 points

LESSON 17: DIAGNOSTIC

Diagnostic: Addition and Subtraction

Duration: 0 hrs 40 mins Scoring: 30 points

UNIT 4: MULTIPLICATION AND DIVISION

LESSON 1: INTRODUCTION TO MULTIPLICATION

Study: Introduction to Multiplication

Multiplication as repeated addition, multiplication symbol and sentences, factors and products

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Introduction to Multiplication

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 2: MULTIPLYING BY 0 AND 1

Study: Multiplying by 0 and 1

Zero times any number equals zero, one times any number equals the number itself,

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sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Multiplying by 0 and 1

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 3: MULTIPLICATION ARRAYS

Study: Multiplication Arrays

Showing multiplication problems as arrays, the multiplication table 1-9.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Multiplication Array Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Multiplication Arrays

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 4: MULTIPLICATION FACTS WITH TABLE

Study: Multiplication Facts with Table

Memorizing the multiplication table 1-9, flashcard practice.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Multiplication Table Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Scrolling Multiplication Table Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Multiplication Facts with Table

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 5: TWO-DIGIT BY ONE-DIGIT MULTIPLICATION

Study: Two-Digit by One-Digit Multiplication

Lining up by place value, carrying numbers, sample problems.

Duration: 0

hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Two-Digit by One-Digit Multiplication

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 6: TWO-DIGIT BY TWO-DIGIT MULTIPLICATION

Study: Two-Digit by Two-Digit Multiplication

Lining up by place value, starting with partial answers, adding partial answers, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Two-Digit by Two-Digit Multiplication

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 7: THREE-DIGIT BY ONE-DIGIT MULTIPLICATION

Study: Three-Digit by One-Digit Multiplication

Multiplication as repeated addition, lining up by place value, starting with partial answers, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Three-Digit by One-Digit Multiplication

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 8: THREE-DIGIT MULTIPLICATION

Study: Three-Digit Multiplication

Three-digit by two-digit problems, lining up by place value, partial answers and their sums, three-digit by three-digit problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Three-Digit Multiplication

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 9: MULTIPLYING THREE OR MORE FACTORS

Study: Multiplying Three or More Factors

Using the commutative and associative properties to multiply more than two single-digit factors, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Multiplying Three or More Factors

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 10: INTRODUCTION TO DIVISION

Study: Introduction to Division

Separating equal amounts, symbols and parts of a division sentence, division as reverse of multiplication, using the multiplication table to solve division problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Introduction to Division

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 11: DIVISION WITH 0 AND 1

Study: Division with 0 and 1

Dividing any number by one or by itself, zero as divisor and as dividend, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Division with 0 and 1

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 12: DIVISION FACTS WITH TABLE

Study: Division Facts with Table

Using the multiplication table to solve division problems, flashcard practice.

Duration:

0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Division Facts with Table

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 13: UNDERSTANDING REMAINDERS

Study: Understanding Remainders

Word problems to divide with "something left over", practice.

Duration: 0 hrs 40

mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Understanding Remainders

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 14: INTRODUCTION TO LONG DIVISION

Study: Introduction to Long Division

Setting up a long division problem, demonstration of steps with problems having single-digit divisors, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Introduction to Long Division

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 15: LONG DIVISION WITH REMAINDERS**Study: Long Division with Remainders**

Demonstration of estimating the divisor using multiplication, noting the remainder, sample problems with single-digit divisors and remainders.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Long Division with Remainders

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 16: LONG DIVISION WITH TWO-DIGIT DIVISORS**Study: Long Division with Two-Digit Divisors**

Dividing three-digit dividends by breaking them down, lining up quotients, bringing down digits, using same process for division problems with two-digit divisors, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards 1

Duration: 0 hrs 10 mins

Study: Flash Cards 2

Duration: 0 hrs 10 mins

Quiz: Long Division with Two-Digit Divisors

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 17: LONG DIVISION WITH THREE-DIGIT DIVISORS**Study: Long Division with Three-Digit Divisors**

Applying the steps of long division to problems with three-digit divisors and dividends, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Long Division with Three-Digit Divisors

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 18: CHECKING DIVISION**Study: Checking Division**

Using multiplication to check division problems, adding remainders, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Checking Division

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 19: WRAP-UP

Study: Review Exercises

Duration: 0 hrs 10 mins

Test (CS): Basic Multiplication I

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Basic Multiplication II

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Multi-digit Multiplication I

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Multi-digit Multiplication II

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Basic Division I

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Basic Division II

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Long Division I

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Long Division II

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Long Division III

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Long Division IV

Duration: 0 hrs 40 mins Scoring: 30 points

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Test (TS): Multiplication and Division

Duration: 0 hrs 30 mins Scoring: 50 points

LESSON 20: DIAGNOSTIC

Diagnostic: Multiplication and Division

Duration: 0 hrs 40 mins Scoring: 30 points

UNIT 5: MULTIPLICATION AND DIVISION CONCEPTS

LESSON 1: FACTORS

Study: Factors

Factor pairs, using factor pairs to find all factors of a given number

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Factors

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 2: 2, 4 AND 8 AS FACTORS

Study: 2, 4 and 8 as Factors

Finding numbers with 2, 4, and 8 as factors on the multiplication table, factor patterns, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: 2, 4 and 8 as Factors

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 3: 3, 6 AND 9 AS FACTORS

Study: 3, 6 and 9 as Factors

Finding numbers with 3,6, and 9 as factors on the multiplication table, factor patterns, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: 3, 6 and 9 as Factors

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 4: 5 AND 10 AS FACTORS

Study: 5 and 10 as Factors

Finding numbers with 5 and 10 as factors on the multiplication table, factor patterns, sample problems

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: 5 and 10 as Factors

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 5: COMMON FACTORS

Study: Common Factors

Demonstration of steps to finding greatest common factor (GCF), sample problem

*Duration: 0
hrs 40 mins*

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Common Factors

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 6: PRIME FACTORIZATION

Study: Prime Factorization

Prime and composite numbers, "footprint" of a composite number ("factorprint!") is its prime factorization, using a factor tree, sample problems

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Prime Factorization Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Prime Factorization

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 7: MULTIPLES

Study: Multiples

Finding multiples using skip counting, division, or multiplication; common multiples, steps to finding least common multiple (LCM), sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Multiples

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 8: MULTIPLYING BY 10 AND 100

Study: Multiplying by 10 and 100

Adding one or two zeros to number being multiplied, sample problem.

Duration: 0 hrs
40 mins

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Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Multiplying by 10 and 100

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 9: DIVIDING BY 10 AND 100**Study: Dividing by 10 and 100**

Dropping one or two zeros from dividend, sample problem

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Dividing by 10 and 100

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 10: POWERS OF TEN**Study: Powers of Ten**

Review of parts of an exponential expression, examples with 10 as the base (powers of ten in the base 10 number system), writing powers of ten in standard form (how many zeros), practice.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Powers of Ten

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 11: MULTIPLYING AND DIVIDING BY POWERS OF TEN**Study: Multiplying and Dividing by Powers of Ten**

Moving the decimal point left or right , zeros as place holders, sample problems.

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Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Multiplying and Dividing by Powers of Ten

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 12: ESTIMATING PRODUCTS

Study: Estimating Products

Under and overestimating, range estimates, rounding factors, sample problems.

Duration:

0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Estimating Products

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 13: ESTIMATING QUOTIENTS

Study: Estimating Quotients

Under and overestimating, range estimates, rounding dividends and divisors, sample problems

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Estimating Quotients

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 14: MULTIPLICATION AND DIVISION FACT FAMILIES

Study: Multiplication and Division Fact Families

Demonstration of using fact families to build multiplication and division sentences, rules for doing same

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Multiplication and Division Fact Families

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 15: MULTIPLICATION AND DIVISION WITH VARIABLES

Study: Multiplication and Division with Variables

Finding unknowns using the multiplication table, finding unknowns in word problems, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Multiplication and Division with Variables

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 16: WRAP-UP

Study: Review Exercises

Duration: 0 hrs 10 mins

Test (CS): Factors I

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Factors II

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Multiples

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Multiplying and Dividing by 10 and 100

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Powers of Ten

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Estimation

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Fact Families and Variables

Duration: 0 hrs 40 mins Scoring: 30 points

Test (TS): Multiplication and Division Concepts

Duration: 0 hrs 30 mins Scoring: 50 points

LESSON 17: DIAGNOSTIC

Diagnostic: Multiplication and Division Concepts

Duration: 0 hrs 40 mins Scoring: 30 points

UNIT 6: FRACTIONS

LESSON 1: THE MEANING OF FRACTIONS

Study: The Meaning of Fractions

Writing a fraction--numerator, denominator; reading a fraction

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Fraction Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: The Meaning of Fractions

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 2: THE MEANING OF FRACTIONS: PART OF A GROUP**Study: The Meaning of Fractions: Part of a Group**

Role of numerator and denominator in fractions representing parts of groups

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: The Meaning of Fractions: Part of a Group

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 3: FRACTIONS WITH ZEROS**Study: Fractions with Zeros**

Zero in numerator equals zero; zero in denominator is undefined

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Fractions with Zeros

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 4: ESTIMATING FRACTIONS

Study: Estimating Fractions

Comparing common fractions, estimating fractional amounts and mixed numbers, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Estimating Fractions

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 5: LOCATING FRACTIONS ON A NUMBER LINE

Study: Locating Fractions on a Number Line

Parts of the number line between units, dividing the number line by a denominator, finding improper fractions on the number line, practice.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Locating Fractions on a Number Line

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 6: COMPARING LIKE FRACTIONS

Study: Comparing Like Fractions

Comparing numerators, sample problem

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Comparing Like Fractions

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 7: EQUIVALENT FRACTIONS

Study: Equivalent Fractions

Different fractions that name the same amount, finding equivalent fractions by multiplying top and bottom by same non-zero number, using division to find equivalent fractions, sample problem

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Equivalent Fractions

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 8: SIMPLIFYING FRACTIONS

Study: Simplifying Fractions

Dividing numerator and denominator by same non-zero number greater than 1 to reduce fraction, dividing by GCF to get simplest form, sample problem

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Simplifying Fractions

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 9: FINDING COMMON DENOMINATORS

Study: Finding Common Denominators

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Rewriting fractions to get common denominators, finding LCM, multiplying denominators, sample problems

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Finding Common Denominators

Duration: 0 hrs 10 mins Scoring: 10 points

LESSON 10: COMPARING UNLIKE FRACTIONS

Study: Comparing Unlike Fractions

Finding least common denominator to compare fractions, sample problems

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Comparing Unlike Fractions

Duration: 0 hrs 10 mins Scoring: 10 points

LESSON 11: FRACTIONS OF WHOLE NUMBERS

Study: Fractions of Whole Numbers

Dividing more than one item or number, renaming improper fractions as whole numbers, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Fractions of Whole Numbers

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 12: MIXED NUMBERS AND IMPROPER FRACTIONS

Study: Mixed Numbers and Improper Fractions

Combination of a whole number and a fraction, reading mixed numbers, writing improper fractions, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Mixed Numbers and Improper Fractions

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 13: COMPARING AND ORDERING MIXED NUMBERS

Study: Comparing and Ordering Mixed Numbers

Comparing whole number parts first, rewriting fractional parts to get common denominators, ordering more than two mixed numbers, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Comparing and Ordering Mixed Numbers

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 14: CONVERTING MIXED NUMBERS AND IMPROPER FRACTIONS

Study: Converting Mixed Numbers and Improper Fractions

Finding the numerator to convert from a mixed number to an improper fraction, dividing to convert from an improper fraction to a mixed number, sample problems

Duration: 0 hrs 40

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mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Converting Mixed Numbers and Improper Fractions

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 15: WRAP-UP

Study: Review Exercise

Duration: 0 hrs 10 mins

Test (CS): Basic Fractions I

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Basic Fractions II

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Basic Fractions III

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Comparing Fractions

Duration: 0 hrs 40 mins Scoring: 30 points

Test (CS): Mixed Numbers and Improper Fractions

Duration: 0 hrs 40 mins Scoring: 30 points

Test (TS): Fractions

Duration: 0 hrs 40 mins Scoring: 50 points

LESSON 16: DIAGNOSTIC

Diagnostic: Fractions

Duration: 0 hrs 40 mins Scoring: 30 points

UNIT 7: SEMESTER WRAP-UP

LESSON 1: PREPARING FOR THE SEMESTER EXAM

Review: Semester Review

Duration: 0 hrs 40 mins

Exam: Semester Exam

Exam covering the entire semester

Duration: 0 hrs 50 mins Scoring: 215 points

UNIT 8: OPERATIONS WITH FRACTIONS

LESSON 1: WORD PROBLEMS WITH FRACTIONS

Study: Word Problems With Fractions

Review the learning objectives and key concepts covered in this unit. Includes Think About It printable essay questions.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Word Problems With Fractions

Review of four steps in problem-solving, application of problem-solving strategies to analyze word problems with fractions, sample problems worked through.

Duration: 0 hrs 25 mins Scoring: 14 points

LESSON 2: ADDING AND SUBTRACTING LIKE FRACTIONS

Study: Adding and Subtracting Like Fractions

Review of addition and subtraction with whole numbers, sample problems to add and subtract fractions with like denominators.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Adding and Subtracting Like Fractions

Duration: 0 hrs 25 mins Scoring: 15 points

LESSON 3: ADDING AND SUBTRACTING LIKE FRACTIONS IN WORD PROBLEMS

Study: Adding and Subtracting Like Fractions in Word Problems

Review of four steps in problem-solving, application of problem-solving strategies to analyze word problems with fractions, rewriting word problems as number problems, sample problems worked through.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Adding and Subtracting Like Fractions in Word Problems

Duration: 0 hrs 25 mins Scoring: 11 points

LESSON 4: ADDING AND SUBTRACTING UNLIKE FRACTIONS

Study: Adding and Subtracting Unlike Fractions

Rewriting fractions to get equivalent fractions, using least common denominator, adding and subtracting equivalent fractions, practice problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Reading and Writing Music

Exploration of musical notes as fractions of wholes, time signature as a fraction, and how the fractional value of each note in a measure adds up to the number of beats in that measure.

Duration: 0 hrs 10

mins

Study: Math and Musical Instruments

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Exploration of the development of different musical instruments and how mathematical relationships such as the speed of the vibrations an instrument generates determine pitch.

Duration: 0 hrs 10 mins

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Adding and Subtracting Unlike Fractions

Duration: 0 hrs 25 mins Scoring: 14 points

LESSON 5: ADDING AND SUBTRACTING UNLIKE FRACTIONS IN WORD PROBLEMS

Study: Adding and Subtracting Unlike Fractions in Word Problems

Review of four steps in problem-solving, application of problem-solving strategies to analyze word problems with fractions,rewriting word problems as number problems, rewriting fractions to get equivalent fractions, sample problems worked through.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Adding and Subtracting Unlike Fractions in Word Problems

Duration: 0 hrs 25 mins Scoring: 15 points

LESSON 6: ADDING MIXED NUMBERS

Study: Adding Mixed Numbers

Definition of mixed number, adding components, order of addition with mixed numbers, adding mixed numbers whose fractions have different denominators, when and how to carry over whole numbers, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Adding Mixed Numbers

Duration: 0 hrs 25 mins Scoring: 15 points

LESSON 7: SUBTRACTING MIXED NUMBERS

Study: Subtracting Mixed Numbers

Order of subtraction with mixed numbers, subtracting mixed numbers whose fractions have different denominators, when and how to borrow from whole numbers, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

practices answer key answer keys answers answer sheet answer sheets scoring rubric scoring rubrics subtracting mixed numbers subtract mixed numbers equivalent fraction equivalent fractions find common denominator find common denominators finding common denominator finding common denominators lowest common denominator lowest common denominators borrow borrowing

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Subtracting Mixed Numbers

Duration: 0 hrs 25 mins Scoring: 15 points

LESSON 8: ADDING AND SUBTRACTING FRACTIONS AND WHOLE NUMBERS

Study: Adding and Subtracting Fractions and Whole Numbers

Sample problems to practice adding and subtracting different combinations of fractions and whole numbers with like or unlike denominators, changing improper fractions to mixed numbers and borrowing fractions from whole numbers to solve problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Adding and Subtracting Fractions and Whole Numbers

Duration: 0 hrs 25 mins Scoring: 15 points

LESSON 9: MULTIPLYING FRACTIONS

Study: Multiplying Fractions

Multiplying fractions by whole numbers and fractions, multiplying across numerator and denominator, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

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practices answer key answer keys answers answer sheet answer sheets scoring rubric scoring rubrics multiplying fractions multiply fractions
Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Multiplying Fractions

Duration: 0 hrs 25 mins Scoring: 14 points

LESSON 10: MULTIPLYING FRACTIONS IN WORD PROBLEMS

Study: Multiplying Fractions in Word Problems

Review of four steps in problem-solving, application of problem-solving strategies to analyze word problems with fractions, rewriting word problems as number problems, sample problems worked through.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Multiplying Fractions in Word Problems

Duration: 0 hrs 25 mins Scoring: 15 points

LESSON 11: MULTIPLYING MIXED NUMBERS

Study: Multiplying Mixed Numbers

Converting mixed numbers to improper fractions, converting products back into mixed numbers, sample problem worked through.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Multiplying Mixed Numbers

Duration: 0 hrs 25 mins Scoring: 14 points

LESSON 12: WRAP-UP

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 100 points

Study: Review Exercise

Duration: 0 hrs 10 mins

Test (CS): Adding and Subtracting Like Fractions I

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Adding and Subtracting Like Fractions II

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Adding and Subtracting Unlike Fractions I

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Adding and Subtracting Unlike Fractions II

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Adding and Subtracting Mixed Numbers

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Multiplying Fractions

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Multiplying Mixed Numbers

Duration: 0 hrs 30 mins Scoring: 28 points

Test (TS): Operations with Fractions

Duration: 0 hrs 30 mins Scoring: 50 points

LESSON 13: DIAGNOSTIC

Diagnostic: Operations with Fractions

Duration: 0 hrs 40 mins Scoring: 30 points

UNIT 9: DECIMALS, PERCENTS AND RATIOS

LESSON 1: THE MEANING OF DECIMALS

Study: The Meaning of Decimals

Review the learning objectives and key concepts covered in this unit. Includes Think About It printable essay questions.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: The Meaning of Decimals

Definition and meaning of decimal point.

Duration: 0 hrs 25 mins Scoring: 15 points

LESSON 2: PLACE VALUE WITH DECIMALS

Study: Place Value with Decimals

Place names for numbers to the right of a decimal point, how value decreases moving to the right of a decimal point, comparing and reading decimal values, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Place Value with Decimals

Duration: 0 hrs 25 mins Scoring: 15 points

LESSON 3: LOCATING DECIMALS ON A NUMBER LINE

Study: Locating Decimals on a Number Line

Finding parts of a whole on the number line, writing fractions from the number line in decimal form, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Locating Decimals on a Number Line

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 4: COMPARING AND ORDERING DECIMALS

Study: Comparing and Ordering Decimals

Comparing decimals using greater than and less than symbols, lining up decimal points, comparing whole numbers parts, using zeros as place value holders, applying rules to order more than two decimals, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Scoring Sporting Events

Overview of how some Olympic sports are scored, more detailed analysis of Olympic gymnastic events scoring.

Duration: 0 hrs 10 mins

Study: Timing Sporting Events

History and degree of accuracy of timing methods and tools used in sporting events, including the chronometer, electronic and quartz tools, photo finishes, and the latest computer programs.

Duration: 0 hrs

10 mins

Study: Photo Finishes

Examples of "photo finishes," or closely won events, in recent Olympic and other sporting events.

Duration: 0 hrs 10 mins

Practice: Stopwatch Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Comparing and Ordering Decimals

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 5: ROUNDING WITH DECIMALS

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Study: Rounding with Decimals

Review of rounding whole numbers, applying same rules to rounding decimals, how rounding can affect higher place values, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Rounding with Decimals

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 6: THE MEANING OF PERCENT**Study: The Meaning of Percent**

Definition of percent, percent as a fraction in which the denominator is always 100, percent as a ratio of part to whole.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Flower Garden Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: The Meaning of Percent

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 7: ESTIMATING PERCENT**Study: Estimating Percent**

Common percents and where they appear, converting percents to fractions, estimating amounts using common percents, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Estimating Percent

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 8: WORKING WITH PERCENTS

Study: Working with Percents

Sum of whole always equal to 100%, finding missing percents, real-world problems finding percents.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Working with Percents

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 9: RELATING FRACTIONS, DECIMALS AND PERCENTS

Study: Relating Fractions, Decimals and Percents

Writing values as fractions, decimals, and percents, sample problems to practice finding missing percent, decimal, or fraction.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Fractions, Decimals, and Percents Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Relating Fractions, Decimals and Percents

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 10: COMMON FRACTIONS, DECIMALS AND PERCENTS

Study: Common Fractions, Decimals and Percents

Converting among common fractions, decimals and percents (25, 50, 75, 100), common fractions with 10 in denominator and how they appear as decimals and percents, sample problem.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Common Fractions, Decimals and Percents

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 11: INTRODUCTION TO RATIOS**Study: Introduction to Ratios**

Writing fractions as ratios, simplifying ratios, other ways to write ratios, order of numbers in a ratio, sample problem.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Introduction to Ratios

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 12: WRAP-UP**Study: Review Exercises**

Duration: 0 hrs 10 mins

Test (CS): Basic Decimals I

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Basic Decimals II

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Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Rounding with Decimals

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Basic Percents

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Fractions, Decimals and Percents I

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Fractions, Decimals and Percents II

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Ratios

Duration: 0 hrs 30 mins Scoring: 30 points

Test (TS): Decimals, Percents and Ratios

Duration: 0 hrs 30 mins Scoring: 50 points

LESSON 13: DIAGNOSTIC

Diagnostic: Decimals, Percents and Ratios

Duration: 0 hrs 40 mins Scoring: 30 points

UNIT 10: OPERATIONS WITH DECIMALS

LESSON 1: ADDING AND SUBTRACTING DECIMALS

Study: Adding and Subtracting Decimals

Review of place value to the right of a decimal point, lining up decimal points to add and subtract, regrouping, using zeros as place value holders, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards 1

Duration: 0 hrs 10 mins

Study: Flash Cards 2

Duration: 0 hrs 10 mins

Quiz: Adding and Subtracting Decimals

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 2: DECIMALS AND MONEY

Study: Decimals and Money

Writing values of bills and coins as decimals, adding and subtracting money using coins and bills and using decimals, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: History of Money

Evolution of modern money systems from earlier bartering through token economies to official government currency.

Duration: 0 hrs 10 mins

Study: U.S. Coins and Bills

History of development of U.S. currency, the dollar as a base of the decimal system, establishment of national mint.

Duration: 0 hrs 10 mins

Quiz: Decimals and Money

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 3: MULTIPLYING DECIMALS

Study: Multiplying Decimals

Estimating products by rounding decimal factors, using estimates to place decimal point in products, rule for number of decimal places in products.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Multiplying Decimals

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 4: MULTIPLYING DECIMALS AND ADDING ZEROS

Study: Multiplying Decimals and Adding Zeros

Using zero as a place value holder when multiplying decimals, sample problem.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Multiplying Decimals and Adding Zeros

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 5: REPEATING DECIMALS

Study: Repeating Decimals

Fractions whose decimal equivalents repeat, rounding and estimating their values, using the almost equal symbol, the repeating decimal symbol, converting repeating decimals to fractions, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Repeating Decimals

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 6: DIVIDING DECIMALS

Study: Dividing Decimals

Review of long division, placing the decimal point to divide, adding zeros to hold place value, using decimals to display remainders, dividing a decimal by a decimal, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards 1

Duration: 0 hrs 10 mins

Study: Flash Cards 2

Duration: 0 hrs 10 mins

Study: Flash Cards 3

Duration: 0 hrs 10 mins

Quiz: Dividing Decimals

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 7: ADDING AND SUBTRACTING DECIMALS IN WORD PROBLEMS

Study: Adding and Subtracting Decimals in Word Problems

Review of problem-solving steps, converting word problems to number problems with decimals, sample problems to practice adding and subtracting decimals.

Duration: 0 hrs

40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Adding and Subtracting Decimals in Word Problems

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Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 8: WORD PROBLEMS WITH DECIMALS - ALL OPERATIONS

Study: Word Problems with Decimals - All Operations

Using real-world items in a grocery store to practice adding, subtracting, multiplying, and dividing decimals.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Word Problems with Decimals - All Operations

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 9: ESTIMATING SUMS AND DIFFERENCES WITH DECIMALS

Study: Estimating Sums and Differences with Decimals

Rounding decimal values to nearest whole number, using larger place values for larger numbers, how rounding to different place values affects estimates, sample problems to practice estimating decimal sums and differences.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Estimating Sums and Differences with Decimals

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 10: ESTIMATING PRODUCTS AND QUOTIENTS OF DECIMALS

Study: Estimating Products and Quotients of Decimals

Rounding decimal numbers to highest place value to multiply or

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divide, rounding decimal values less than 1, estimating products and quotients less than 1, sample problems.

Duration: 0

hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards 1

Duration: 0 hrs 10 mins

Study: Flash Cards 2

Duration: 0 hrs 10 mins

Quiz: Estimating Products and Quotients of Decimals

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 11: WRAP-UP

Study: Review Exercise

Duration: 0 hrs 10 mins

Test (CS): Adding and Subtracting Decimals I

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Adding and Subtracting Decimals II

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Multiplying Decimals

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Repeating Decimals

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Dividing Decimals

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Estimation with Decimals

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Duration: 0 hrs 30 mins Scoring: 30 points

Test (TS): Operations with Decimals

Duration: 0 hrs 30 mins Scoring: 50 points

LESSON 12: DIAGNOSTIC

Diagnostic: Operations with Decimals

Duration: 0 hrs 40 mins Scoring: 30 points

UNIT 11: PROBLEM SOLVING

LESSON 1: BUILDING BASIC WORD PROBLEMS

Study: Building Basic Word Problems

Converting number sentences into addition or subtraction word problems, sample problem.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Building Basic Word Problems

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 2: A FOUR-STEP APPROACH

Study: A Four-Step Approach

Applying the four steps to solving problems to a Soap Box Derby question.

*Duration: 0
hrs 40 mins*

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: A Four-Step Approach

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 3: TOO MUCH OR TOO LITTLE INFORMATION

Study: Too Much or Too Little Information

Determining if there is enough information to solve a given problem, identifying missing information, separating relevant from irrelevant information, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Too Much or Too Little Information

Duration: 0 hrs 25 mins Scoring: 6 points

LESSON 4: CHOOSING THE OPERATION IN WORD PROBLEMS

Study: Choosing the Operation in Word Problems

Selecting which operations to use in building a math sentence, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Choosing the Operation in Word Problems

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 5: DRAW A DIAGRAM

Study: Draw a Diagram

What information to include in diagram of problem, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Draw a Diagram

Duration: 0 hrs 25 mins Scoring: 6 points

LESSON 6: USE A MODEL OR ACT IT OUT

Study: Use a Model or Act it Out

Sample problems showing when and how to use acting out a problem and making a model.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Use a Model or Act it Out

Duration: 0 hrs 25 mins Scoring: 6 points

LESSON 7: MAKE A LIST

Study: Make a List

Steps to making a list to solve a word problem, strategies for checking your answer, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Make a List

Duration: 0 hrs 25 mins Scoring: 6 points

LESSON 8: BUILD A CHART AND FIND A PATTERN

Study: Build a Chart and Find a Pattern

Collecting data in a chart, identifying patterns to solve a word problem, completing a chart to answer a question, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Build a Chart and Find a Pattern

Duration: 0 hrs 25 mins Scoring: 6 points

LESSON 9: GUESS AND CHECK**Study: Guess and Check**

studies guess check guess checking problem solving steps understand understanding plan
planning solve solving look back looking back problem solving strategy problem solving strategies using given information
using information given word problem word problems logical guess logical guessing use logic using logic

*Duration: 0 hrs 40
mins*

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Guess and Check

Duration: 0 hrs 25 mins Scoring: 6 points

LESSON 10: WORK BACKWARD**Study: Work Backward**

Starting with a solution and working backward to solve a word problem, checking your answer by
working forward, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Work Backward

Duration: 0 hrs 25 mins Scoring: 6 points

LESSON 11: BUILDING EQUATIONS

Study: Building Equations

Setting up an equation from information in a word problem, choosing the correct operation(s), sample problem.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Building Equations

Duration: 0 hrs 25 mins Scoring: 6 points

LESSON 12: DEDUCTIVE REASONING**Study: Deductive Reasoning**

Definition of deductive reasoning, practice making conclusions, deducing which statements in a problem are true, sample problem.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Codes and Ciphers

Description and examples of codes, ciphers, and keys.

Duration: 0 hrs 10 mins

Study: Number Codes and Ciphers

Looking for patterns and using logical reasoning skills to "crack" codes, description of substitution and number ciphers, and using logical guesses to decipher messages.

Duration: 0 hrs 10 mins

Study: Codes through History

Duration: 0 hrs 10 mins

Quiz: Deductive Reasoning

Examples of codes through history, beginning with early Egyptian codes through ciphers used by Mary Queen of Scots and code machines in the first and second World Wars.

Duration: 0 hrs 25 mins Scoring: 6 points

LESSON 13: INDUCTIVE REASONING

Study: Inductive Reasoning

Description of inductive reasoning, using induction to continue a pattern, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Not-So-Secret Codes

Duration: 0 hrs 10 mins

Study: Secret Code Talk

Examples of codes in everyday life, such as binary codes used in computers, Morse code, Braille, and American Sign Language.

Duration: 0 hrs 10 mins

Quiz: Inductive Reasoning

Duration: 0 hrs 25 mins Scoring: 6 points

LESSON 14: LOGIC PUZZLES**Study: Logic Puzzles**

Organizing logic data in a grid, direct and indirect information, sample logic problems.

Duration: 0

hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Math Tricks and Puzzles

Duration: 0 hrs 10 mins

Study: Benjamin Banneker

Duration: 0 hrs 10 mins

Quiz: Logic Puzzles

Duration: 0 hrs 25 mins Scoring: 6 points

LESSON 15: WRAP-UP

Study: Review Exercise

Duration: 0 hrs 10 mins

Test (CS): Introduction to Problem Solving

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Problem Solving Strategies

Duration: 0 hrs 30 mins Scoring: 20 points

Test (CS): Logic I

Duration: 0 hrs 30 mins Scoring: 20 points

Test (CS): Logic II

Duration: 0 hrs 30 mins Scoring: 20 points

Test (TS): Problem Solving

Duration: 0 hrs 30 mins Scoring: 50 points

LESSON 16: DIAGNOSTIC

Diagnostic: Problem Solving

Duration: 0 hrs 40 mins Scoring: 30 points

UNIT 12: BASIC CONCEPTS IN GEOMETRY

LESSON 1: POINTS, SEGMENTS, RAYS AND LINES

Study: Points, Segments, Rays and Lines

studies geometry definition geometry name objects naming objects name
object naming object name points naming points name point naming point name segments naming segments name
segment naming segment name rays naming rays name ray naming ray name lines naming lines name line naming line

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Points, Segments, Rays and Lines

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 2: IDENTIFYING PARTS OF ANGLES**Study: Identifying Parts of Angles**

Definitions and naming of most basic geometric objects.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Identifying Parts of Angles

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 3: CLASSIFYING ANGLES**Study: Classifying Angles**

Examples and definition of an angle, vertices and sides, naming angles, practice naming angles.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Classifying Angles

Duration: 0 hrs 25 mins Scoring: 9 points

LESSON 4: MEASURING ANGLES WITH A PROTRACTOR

Study: Measuring Angles with a Protractor

Measuring angles, classifying by degrees, definitions of acute, right, and obtuse angles, practice classifying angles by degrees.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Measuring Angles with a Protractor

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 5: PARALLEL, INTERSECTING AND PERPENDICULAR PATHS

Study: Parallel, Intersecting and Perpendicular Paths

Steps to measuring angles with a protractor, practice using protractor tool.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Parallel, Intersecting and Perpendicular Paths

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 6: OPEN AND CLOSED FIGURES

Study: Open and Closed Figures

Definitions and examples of intersecting, perpendicular, and parallel lines, practice identifying types of lines.

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Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Open and Closed Figures

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 7: IDENTIFYING POLYGONS

Study: Identifying Polygons

Definitions of open and closed geometric figures.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Quilts

Duration: 0 hrs 10 mins

Quiz: Identifying Polygons

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 8: CLASSIFYING TRIANGLES

Study: Classifying Triangles

Definition and types of polygons, common examples such as triangles, quadrilaterals and pentagons, practice identifying different polygons.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Classifying Triangles

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 9: CLASSIFYING QUADRILATERALS

Study: Classifying Quadrilaterals

Classifying triangles by lengths of sides, definitions and examples of isosceles, equilateral, and scalene triangles, practice classifying triangles by side length.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards

Duration: 0 hrs 10 mins

Quiz: Classifying Quadrilaterals

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 10: IDENTIFYING PARTS OF CIRCLES

Study: Identifying Parts of Circles

Definitions and examples of common quadrilaterals such as rectangles, squares, and rhombi, all subsets of parallelogram, definition and examples of trapezoid, practice identifying quadrilaterals.

*Duration: 0
hrs 40 mins*

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Identifying Parts of Circles

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 11: LINES OF SYMMETRY

Study: Lines of Symmetry

Definition and parts of a circle, including center, radius, diameter, chords, and circumference,

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practice identifying parts of a circle.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Lines of Symmetry

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 12: SLIDING, TURNING AND FLIPPING SHAPES

Study: Sliding, Turning and Flipping Shapes

Definition of line of symmetry, how to find one, examples of objects with lines of symmetry (1 or more), objects with no lines of symmetry, practice identifying lines of symmetry.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Tessellations

Duration: 0 hrs 10 mins

Practice: Slide, Flip, Turn Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Sliding, Turning and Flipping Shapes

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 13: CONGRUENCE AND SIMILARITY

Study: Congruence and Similarity

Examples of sliding, rotating and inverting shapes and the effect of doing each, practice manipulating shapes.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Congruence and Similarity

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 14: USING GEOMETRIC VOCABULARY

Study: Using Geometric Vocabulary

Definitions and examples of congruent and similar shapes, practice determining congruence and similarity.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Using Geometric Vocabulary

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 15: WRAP-UP

Study: Review Exercises

Duration: 0 hrs 10 mins

Test (CS): Basic Geometry Concepts

Describing objects geometrically.

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Angles and Paths

Duration: 0 hrs 30 mins Scoring: 28 points

Test (CS): Polygons and Other Shapes

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Triangles and Quadrilaterals

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Circle Concepts I

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Symmetry, Congruence and Similarity

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Geometric Vocabulary

Duration: 0 hrs 30 mins Scoring: 26 points

Test (TS): Basic Concepts in Geometry

Duration: 0 hrs 30 mins Scoring: 50 points

LESSON 16: DIAGNOSTIC

Diagnostic: Basic Concepts in Geometry

Duration: 0 hrs 40 mins Scoring: 30 points

UNIT 13: MEASURING SHAPES

LESSON 1: PERIMETER

Study: Perimeter

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Perimeter Builder Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards 1

Duration: 0 hrs 10 mins

Study: Flash Cards 2

Duration: 0 hrs 10 mins

Quiz: Perimeter

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 2: INTRODUCTION TO AREA

Study: Introduction to Area

Definition of perimeter, formula for perimeter of special shapes such as rectangles and squares, practice calculating perimeter.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Tile Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Introduction to Area

A tool to help visually explore patterns and properties in numbers

Duration: 0 hrs 25 mins

Scoring: 10 points

LESSON 3: AREA OF RECTANGLES AND SQUARES

Study: Area of Rectangles and Squares

Definition of area, measuring area with tiles, practice calculating area of real-world objects.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Area Builder Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards 1

Tool to build rectangles and squares and explore length, width, and area.

Duration: 0 hrs 10 mins

Study: Flash Cards 2

Duration: 0 hrs 10 mins

Quiz: Area of Rectangles and Squares

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 4: AREA OF PARALLELOGRAMS

Study: Area of Parallelograms

Formulas for calculating areas of rectangles and squares, sample problem, and practice with area builder.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards 1

Duration: 0 hrs 10 mins

Study: Flash Cards 2

Duration: 0 hrs 10 mins

Quiz: Area of Parallelograms

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 5: AREA OF TRIANGLES

Study: Area of Triangles

Base and height of parallelograms, formula for calculating area, building a parallelogram and finding its area, sample problem.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards 1

Duration: 0 hrs 10 mins

Study: Flash Cards 2

Duration: 0 hrs 10 mins

Quiz: Area of Triangles

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 6: INTRODUCTION TO VOLUME

Study: Introduction to Volume

Relationship of triangles and parallelograms, comparing base and height of both shapes, formula for area of a triangle, building a triangle and finding its area, sample problem.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Practice: Volume Builder Tool

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: Introduction to Volume

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 7: VOLUME OF RECTANGULAR SOLIDS

Study: Volume of Rectangular Solids

Definition of solid shapes, formula for volume, measuring in cubic units, comparing volumes.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Study: Flash Cards 1

Duration: 0 hrs 10 mins

Study: Flash Cards 2

Duration: 0 hrs 10 mins

Quiz: Volume of Rectangular Solids

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 8: THE NUMBER PI

Study: The Number Pi

Formula for calculating volume of rectangular solids, sample problems.

Duration: 0 hrs 40 mins

Practice: Assignment

Duration: 0 hrs 30 mins Scoring: 25 points

Quiz: The Number Pi

Duration: 0 hrs 25 mins Scoring: 10 points

LESSON 9: WRAP-UP

Study: Review Exercise

Duration: 0 hrs 10 mins

Test (CS): Perimeter

Relationship between circumference and diameter of a circle, definition of pi, practice relating circumference and diameter.

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Area I

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Area II

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Volume

Duration: 0 hrs 30 mins Scoring: 30 points

Test (CS): Circle Concepts II

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Duration: 0 hrs 30 mins Scoring: 30 points

Test (TS): Measuring Shapes

Duration: 0 hrs 30 mins Scoring: 50 points

LESSON 10: DIAGNOSTIC

Diagnostic: Measuring Shapes

Duration: 0 hrs 40 mins Scoring: 30 points

UNIT 14: SEMESTER WRAP-UP

LESSON 1: PREPARING FOR THE SEMESTER EXAM

Review: Semester Review

Duration: 0 hrs 40 mins

Exam: Semester Exam

Exam covering the entire semester

Duration: 0 hrs 50 mins Scoring: 180 points