gmt Math

Math: GRADE 2

Lesson 1: Introduction to Counting and Number Lines (up to 100)

By the end of this lesson, students will be able to count up to 100 and represent numbers on a number line.

Lesson 2: Exploring Numbers on Number Lines (up to 1,000)

By the end of this lesson, students will be able to extend their counting skills up to 1,000 and represent numbers on number lines.

Lesson 3: Comparing and Ordering Numbers (up to 1,000)

By the end of this lesson, students will be able to compare numbers up to 1,000, order numbers, and solve word problems related to finding the greatest and least values.

Lesson 4: Applying Comparisons and Ordering in Word Problems (up to 1,000)

By the end of this lesson, students will be able to apply their knowledge of comparing and ordering numbers up to 1,000 to solve word problems that involve identifying the greatest and least values.

Lesson 5: Introduction to Skip-Counting and Basic Number Patterns

By the end of this lesson, students will be able to skip-count by twos, fives, and tens and identify basic number patterns.

Lesson 6: Exploring Skip-Counting and Advanced Patterns

By the end of this lesson, students will be able to skip-count by fives, tens, and more complex combinations (e.g., twos, fives, and tens), and understand more advanced number patterns.

Lesson 7: Mastering Skip-Counting and Sequences

By the end of this lesson, students will be able to count forward and backward by fives, tens, twos, fives, tens, and hundreds. They will also be able to solve skip-counting puzzles and count forward by tens up to 1,000.

Lesson 8: Spelling Number Names and Basic Number Words (up to 100)

By the end of this lesson, students will be able to spell number names for numbers up to 20 and write numbers up to 100 in words.

Lesson 9: Converting Number Words to Digits and Vice Versa (up to 1,000)

By the end of this lesson, students will be able to convert number words to digits and vice versa for numbers up to 1,000.

Lesson 10: Introduction to Roman Numerals (I, V, X)

By the end of this lesson, students will be able to read and write basic Roman numerals (I, V, X) and understand their significance in historical and mathematical contexts.

Lesson 11: Understanding Even and Odd Numbers (up to 20)

By the end of this lesson, students will be able to distinguish between even and odd numbers up to 20, identify them in various representations (shapes, numbers, number lines), and understand the properties of even and odd numbers.

Lesson 12: Mastering Even and Odd Numbers (up to 100)

By the end of this lesson, students will be able to identify and select even and odd numbers up to 100 confidently, and apply their knowledge to solve problems that involve recognizing even and odd numbers in various contexts.

Lesson 13: Exploring Addition Strategies with One-Digit Numbers

By the end of this lesson, students will be able to use addition strategies to solve problems involving adding doubles, near doubles, making ten to add, and adding zero.

Lesson 14: Applying Addition Strategies in Real-World Scenarios

By the end of this lesson, students will be able to apply addition strategies using models, number lines, and counting on methods to solve addition problems with numbers that sum to 20.

Lesson 15: Exploring Addition with One-Digit Numbers (Sums to 20)

By the end of this lesson, students will be able to add one-digit numbers to achieve sums up to 20. This lesson will cover topics such as adding one-digit numbers, sorting addition facts, and solving addition word problems with sums up to 20.

Lesson 16: Advanced Addition with One-Digit Numbers (Three or More Numbers)

By the end of this lesson, students will be able to add three or more one-digit numbers and solve word problems that involve adding multiple one-digit numbers.

Lesson 17: Exploring Subtraction Strategies with One-Digit Numbers

By the end of this lesson, students will be able to use subtraction strategies to solve problems involving subtracting doubles, using number lines for subtraction, counting back to subtract, and using ten to subtract.

Lesson 18: Advanced Subtraction Strategies with One-Digit Numbers

By the end of this lesson, students will be able to apply subtraction strategies, including counting on for subtraction, subtracting zero or all from a number, and solving subtraction problems with numbers up to 20.

Lesson 19: Subtraction with One-Digit Numbers (Up to 18)

By the end of this lesson, students will be able to subtract one-digit numbers from one another, and they will understand basic subtraction concepts.

Lesson 20: Subtraction with One-Digit Numbers in Word Problems (Up to 18)

By the end of this lesson, students will be able to solve subtraction word problems up to 18 by applying subtraction sentences, completing subtraction sentences, and balancing subtraction equations to find the correct answer.

Lesson 21: Exploring Mixed Addition and Subtraction (Up to 20)

By the end of this lesson, students will be able to understand and apply mixed operations with one-digit numbers up to 20. They will learn to use number lines, solve addition and subtraction problems, find ways to make a number using addition and subtraction, and balance equations involving addition and subtraction.

Lesson 22: Advanced Mixed Operations (Up to 20) and Input/Output Tables

By the end of this lesson, students will be able to solve more complex mixed operations problems with numbers up to 20. They will also learn to write addition or subtraction rules for input/output tables that involve numbers up to 20.

Lesson 23: Solving Mixed Operations Word Problems (Up to 20)

By the end of this lesson, students will be able to solve comparison word problems, addition and subtraction word problems, and two-step addition and subtraction word problems with numbers up to 20. They will also practice matching word problems to addition and subtraction sentences.

Lesson 24: Advanced Problem-Solving with Mixed Operations (Up to 20)

By the end of this lesson, students will be able to solve word problems using guess-and-check strategies. They will apply their problem-solving skills to more complex scenarios involving mixed operations with one-digit numbers up to 20.

Lesson 25: Understanding Place Value (Tens and Ones to Hundreds)

By the end of this lesson, students will be able to understand and work with place value models, identify digits up to the hundreds place, determine the value of a digit within a number, and convert between numbers and their place value representations for tens and ones.

Lesson 26: Extending Place Value (Up to Thousands and Regrouping)

By the end of this lesson, students will be able to extend their understanding of place value to thousands, regroup tens and ones to make numbers, and convert between place values, including ones, tens, and hundreds.

Lesson 27: Advanced Place Value Concepts (Expanded Form and Problem Solving)

By the end of this lesson, students will be able to work with expanded form, convert between standard and expanded form, and apply their place value knowledge to solve problems and guess numbers based on clues.

Lesson 28: Introduction to Addition Strategies with Two-Digit Numbers (No Regrouping)

By the end of this lesson, students will be able to add a two-digit number and a one-digit number using strategies such as breaking apart a one-digit number and using models, without the need for regrouping.

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Lesson 29: Exploring Advanced Addition Strategies with Two-Digit Numbers (With Regrouping)

By the end of this lesson, students will be able to add two-digit numbers using various strategies, including using models, number lines, and compensation, with a focus on regrouping when necessary.

Lesson 30: Mastering Place Value in Two-Digit Addition (With and Without Regrouping)

By the end of this lesson, students will be able to apply place value concepts to add two-digit numbers, both with and without regrouping, using place value models.

Lesson 31: Two-Digit Addition Strategies (Sums up to 100)

By the end of this lesson, students will be able to add a two-digit number and a one-digit number, both without and with regrouping. They will also learn to add multiples of 10 and understand various strategies for adding two-digit numbers to achieve sums up to 100.

Lesson 32: Real-World Application of Two-Digit Addition

By the end of this lesson, students will be able to apply their two-digit addition skills to solve word problems that involve adding numbers up to two digits. They will also learn to find different ways to make a number using addition.

Lesson 33: Mastering Two-Digit Addition and Basic Equations (Sums to 200)

By the end of this lesson, students will be able to complete addition sentences for two-digit numbers, write addition sentences for various two-digit addition problems, and balance addition equations with numbers up to two digits. They will also be able to add two-digit numbers with sums up to 200.

Lesson 34: Adding Multiple Two-Digit Numbers Vertically and Three-Number Addition

By the end of this lesson, students will be able to add two-digit numbers vertically, add three two-digit numbers, and solve word problems involving the addition of three numbers with each number having up to two digits.

Lesson 35: Advanced Addition with Three or Four Numbers and Word Problems

By the end of this lesson, students will be able to add three or four numbers, either horizontally or vertically, with each number having up to two digits. They will also be able to solve word problems involving the addition of three or four numbers with sums up to two digits each.

Lesson 36: Subtraction Strategies with Two-Digit Numbers (No Regrouping)

By the end of this lesson, students will be able to use subtraction strategies to subtract a one-digit number from a two-digit number, both with and without regrouping. They will also learn how to break apart a two-digit number to facilitate subtraction.

Lesson 37: Applying Compensation and Models to Subtract (Up to Two Digits)

By the end of this lesson, students will be able to use compensation strategies to subtract two-digit numbers on a number line, as well as use models to subtract two-digit numbers, both without and with regrouping.

Lesson 38: Mastering Subtraction Strategies with Two-Digit Numbers

By the end of this lesson, students will have a strong grasp of subtraction strategies for two-digit numbers, including breaking apart numbers and using models. They will be able to apply these strategies effectively in various subtraction scenarios.

Lesson 39: Subtraction with Two-Digit Numbers (No Regrouping and Multiples of 10)

By the end of this lesson, students will be able to subtract a one-digit number from a two-digit number, both without regrouping and with regrouping. They will also learn how to subtract multiples of 10.

Lesson 40: Advanced Subtraction with Two-Digit Numbers (With Regrouping)

By the end of this lesson, students will be able to subtract two-digit numbers, both without and with regrouping, and apply these subtraction skills to various scenarios involving two-digit numbers.

Lesson 41: Two-Digit Subtraction and Word Problems

By the end of this lesson, students will be able to subtract two-digit numbers both horizontally and vertically. They will also learn to find different ways to make a number using subtraction and solve word problems involving subtraction of two-digit numbers.

Lesson 42: Completing and Balancing Subtraction Sentences

By the end of this lesson, students will be able to complete subtraction sentences for two-digit numbers, write subtraction sentences for various two-digit subtraction problems, and balance subtraction equations with numbers up to two digits.

Lesson 43: Adding and Subtracting Two-Digit Numbers (Up to 100)

By the end of this lesson, students will be able to add and subtract two-digit numbers, both horizontally and vertically, with sums and differences up to 100. They will also learn how to determine which sign (+ or -) makes a number sentence true and find different ways to make a number using addition and subtraction.

Lesson 44: Relating Addition and Subtraction Sentences (Up to Two Digits)

By the end of this lesson, students will be able to relate addition and subtraction sentences with two-digit numbers, complete addition or subtraction sentences for sums and differences up to 100, and balance addition and subtraction equations.

Lesson 45: Writing Sentences and Exploring Inequalities (Up to 100)

By the end of this lesson, students will be able to write addition and subtraction sentences, understand inequalities with addition and subtraction, and apply their knowledge to solve problems and make comparisons with numbers up to 100.

Lesson 46: Solving Two-Digit Addition and Subtraction Word Problems (Up to 100)

By the end of this lesson, students will be able to solve word problems that involve addition and subtraction with two-digit numbers, with sums and differences up to 100. They will learn to apply their addition and subtraction skills to real-world scenarios.

Lesson 47: Mastering Two-Step Word Problems (Up to 100)

By the end of this lesson, students will be able to solve more complex two-step word problems involving addition and subtraction with two-digit numbers, with sums and differences up to 100. They will apply their problem-solving skills to situations that require multiple steps to find the solution.

Lesson 48: Using Compensation and Models to Add Three-Digit Numbers

By the end of this lesson, students will be able to use compensation strategies to add three-digit numbers, as well as use models to add three-digit numbers both without and with regrouping.

Lesson 49: Advanced Addition with Three-Digit Numbers (With Regrouping)

By the end of this lesson, students will be able to add three-digit numbers with regrouping using various strategies, including models. They will develop a deep understanding of how to add three-digit numbers effectively.

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Lesson 50: Adding Three-Digit Numbers and Word Problems

By the end of this lesson, students will be able to add three-digit numbers, including adding multiples of 100 and 10, and solve addition word problems with three-digit numbers. They will also learn to complete and write addition sentences with numbers up to three digits.

Lesson 51: Balancing and Writing Three-Digit Addition Equations

By the end of this lesson, students will be able to balance addition equations with three-digit numbers and develop the skill of writing addition sentences involving three-digit numbers. They will be able to apply their addition skills to various scenarios with three-digit numbers.

Lesson 52: Using Compensation and Models to Subtract Three-Digit Numbers

By the end of this lesson, students will be able to use compensation strategies to subtract three-digit numbers and apply these strategies to solve subtraction problems with numbers up to three digits.

Lesson 53: Advanced Subtraction with Three-Digit Numbers (With Regrouping)

By the end of this lesson, students will be able to use models to subtract from three-digit numbers, both without and with regrouping. They will develop a deep understanding of how to subtract three-digit numbers effectively.

Lesson 54: Subtraction Strategies and Word Problems with Three-Digit Numbers

By the end of this lesson, students will be able to subtract multiples of 100 and 10 from three-digit numbers, as well as subtract across zeros. They will also learn to solve subtraction word problems involving three-digit numbers, complete subtraction sentences, and write subtraction sentences.

Lesson 55: Subtracting Three-Digit Numbers Vertically and from Three-Digit Numbers

By the end of this lesson, students will be able to subtract three-digit numbers vertically and apply subtraction strategies to subtract from three-digit numbers. They will also learn to solve subtraction word problems with three-digit numbers.

Lesson 56: Balancing and Writing Three-Digit Subtraction Equations

By the end of this lesson, students will be able to balance subtraction equations with three-digit numbers and develop the skill of writing subtraction sentences involving three-digit numbers. They will be able to apply their subtraction skills to various scenarios with three-digit numbers.

Lesson 57: Mixed Operations with Three-Digit Numbers (Addition and Subtraction)

By the end of this lesson, students will be able to add and subtract numbers up to 1,000, both horizontally and vertically, with three-digit numbers. They will also learn to solve addition and subtraction word problems involving three-digit numbers.

Lesson 58: Solving Inequalities with Addition and Subtraction Shortcuts

By the end of this lesson, students will be able to apply addition and subtraction shortcuts to solve inequalities. They will learn techniques to quickly determine inequalities using addition and subtraction with three-digit numbers.

Lesson 59: Understanding Repeated Addition for Equal Groups (Sums to 25)

By the end of this lesson, students will be able to count equal groups and identify repeated addition for equal groups with sums up to 25. They will also learn to write addition sentences for these equal groups, reinforcing the concept of repeated addition.

Lesson 60: Applying Repeated Addition to Arrays (Sums to 25)

By the end of this lesson, students will be able to identify repeated addition for arrays with sums up to 25 and write addition sentences for these arrays. They will apply their understanding of repeated addition to solve problems involving arrays of objects.

Lesson 61: Exploring Addition and Subtraction Properties

By the end of this lesson, students will understand the properties of addition, including the commutative property (add in any order) and related addition facts. They will also learn about related subtraction facts and fact families to reinforce the connections between addition and subtraction operations.

Lesson 62: Addition and Subtraction Terminology

By the end of this lesson, students will learn addition and subtraction terminology, including the names of different elements and parts involved in these operations. They will understand the language associated with addition and subtraction, which will help them communicate and express mathematical ideas more effectively.

Lesson 63: Rounding to the Nearest Ten or Hundred

By the end of this lesson, students will learn to round numbers to the nearest ten or hundred, gaining the ability to make appropriate rounding decisions based on the level of precision required for a given problem or context.

Lesson 64: Estimating Sums and Differences

By the end of this lesson, students will apply their estimation skills to approximate sums and differences of numbers, gaining the ability to quickly assess the magnitude of mathematical expressions and solve problems more efficiently.

Lesson 65: Understanding Coin Names and Values

By the end of this lesson, students will be able to identify and understand the names and values of common coins, including pennies, nickels, and dimes. They will gain a basic understanding of how different coins contribute to a total monetary value.

Lesson 66: Counting and Exchanging Money (Up to $1)

By the end of this lesson, students will learn how to count money, including pennies, nickels, and dimes up to $1. They will also understand equivalent amounts of money and practice exchanging money with pictures, recognizing the least number of coins required to make specific amounts.

Lesson 67: Money Management and Making Change

By the end of this lesson, students will be able to apply their knowledge of coin values to real-life situations. They will learn to determine if they have enough money to make a purchase up to $1, calculate how much more is needed to reach a dollar, provide the correct amount of change, and make change efficiently.

Lesson 68: Adding and Subtracting Money Up to $1

By the end of this lesson, students will be able to add money up to $1, understand word problems that involve adding money, and apply their knowledge to solve addition problems involving currency. Additionally, they will learn to subtract money up to $1 and solve subtraction word problems.

Lesson69: Advanced Money Problem Solving (Word Problems)

By the end of this lesson, students will apply their skills in both adding and subtracting money up to $1 to solve more complex word problems. They will gain proficiency in understanding and solving practical financial scenarios that require the manipulation of money values.

Lesson 70: Understanding Money Up to $5

By the end of this lesson, students will be able to count money up to $5, determine whether they have enough money to make a purchase up to $5, and compare different pictures to identify which shows a greater value in terms of money. This lesson will provide students with the skills needed to manage and assess money up to $5, reinforcing practical financial literacy.

Lesson 71: Understanding A.M. and P.M. and Comparing Clocks

By the end of this lesson, students will learn about the concepts of A.M. and P.M., gaining an understanding of the 12-hour time format. They will also compare different clocks to identify time differences.

Lesson 72: Time Units and Calendar Knowledge

By the end of this lesson, students will understand the number of days in each month and be able to relate time units, such as seconds, minutes, hours, and days, to one another. They will gain a comprehensive understanding of time and calendar-related concepts.

Lesson 73: Understanding Months of the Year

By the end of this lesson, students will be able to identify and understand the months of the year. They will learn the sequence of the months and develop the ability to name each month correctly.

Lesson 74: Reading and Interpreting Calendars

By the end of this lesson, students will learn to read and interpret calendars. They will understand how to navigate a calendar to find specific dates, days of the week, and events or appointments. This lesson will help students become proficient in using and understanding calendars.

Lesson 75: Understanding Tally Charts and Bar Graphs

By the end of this lesson, students will be able to interpret and compare tally charts and bar graphs. They will learn how to identify the correct tally chart and bar graph and understand how to represent data visually.

Lesson 76: Creating and Interpreting Line Plots and Pictographs

By the end of this lesson, students will gain the skills to interpret line plots and create their own line plots. They will also learn to interpret and create pictographs, helping them understand data representation through different graph types.

Lesson 77: Advanced Interpretation and Graph Creation

By the end of this lesson, students will extend their knowledge by interpreting more complex bar graphs. They will also practice creating bar graphs, line plots, and pictographs to represent data effectively, reinforcing their graph creation and interpretation skills.

Lesson 78: Introduction to Measuring Length with Inch Cubes and an Inch Ruler

By the end of this lesson, students will learn the basics of measuring length using inch cubes and an inch ruler. They will be able to accurately measure and compare lengths in inches.

Lesson 79: Determining the Appropriate Customary Unit of Length

Objective: By the end of this lesson, students will learn to determine when to use inches or feet as the appropriate customary unit of length for measurement. They will also be introduced to situations where yards may be used.

Lesson 80: Comparing Lengths and Solving Word Problems

By the end of this lesson, students will apply their knowledge to compare lengths in customary units, solving real-world word problems involving customary units of length. They will be able to make accurate measurements and address practical scenarios that require understanding customary length units.

Lesson 81: Measuring with a Centimeter Ruler and Understanding Metric Units

By the end of this lesson, students will learn to measure length using a centimeter ruler and compare lengths in centimeters. They will develop a solid understanding of metric units of length, focusing on centimeters as the primary unit.

Lesson 82: Determining the Appropriate Metric Unit and Solving Word Problems

By the end of this lesson, students will be able to determine which metric unit of length is appropriate for a given measurement scenario. They will practice comparing lengths in metric units and apply their knowledge to solve word problems related to metric length measurements.

Lesson 83: Identifying and Naming Polygons

By the end of this lesson, students will be able to identify and name various polygons, including quadrilaterals, pentagons, and polygons with up to 6 sides. They will gain a strong understanding of different types of polygons.

Lesson 84: Classifying and Sorting Two-Dimensional Shapes

By the end of this lesson, students will learn how to classify and sort two-dimensional shapes based on their properties, including the number of sides and angles. They will also be introduced to more complex polygons with up to 12 sides.

Lesson 85: Drawing and Composing Two-Dimensional Shapes

By the end of this lesson, students will develop the skill of drawing polygons and composing two-dimensional shapes using various basic shapes. They will gain proficiency in creating complex figures by combining simple geometric elements.

Lesson 86: Naming and Identifying Three-Dimensional Shapes

By the end of this lesson, students will be able to name various three-dimensional shapes and identify them based on their properties. They will also learn about the basic characteristics of cubes.

Lesson 87: Counting and Comparing the Elements of Three-Dimensional Shapes

By the end of this lesson, students will develop the ability to count the vertices, edges, and faces of different three-dimensional shapes. They will also compare the number of these elements across various shapes.

Lesson 88: Recognizing Three-Dimensional Shapes in Everyday Objects

By the end of this lesson, students will be able to identify three-dimensional shapes in everyday objects. They will apply their knowledge to recognize the shapes of common objects in their environment.

Lesson 89: Tiling a Rectangle with Squares

By the end of this lesson, students will be able to tile a rectangle with squares, gaining an understanding of how a larger shape can be composed of smaller, equally-sized units.

Lesson 90: Counting Squares and Understanding Area

By the end of this lesson, students will develop the skill of counting the number of squares used to tile a rectangle. They will also grasp the concept of area as the total space enclosed by a shape, linking their understanding of tiling to the measurement of area.

PRACTISE SESSIONS