Unit 11 Reveal Grade 1

Content Area: **Math**
Course(s): **Math**
Time Period: **April**
Length: **2 weeks**
Status: **Published**

Unit Overview

UNIT 11 PLANNER
Subtraction within 100

PACING: 10 days

LESSON	MATH OBJECTIVE	LANGUAGE OBJECTIVE	SOCIAL AND EMOTIONAL LEARNING OBJECTIVE	LESSON	KEY VOCABULARY
Unit Opener Math Talk Put It All Together Use place value patterns to complete a number chart.					
11-1 Use Mental Math to Find 10 Less	Students use mental math to find 10 less than a given 2-digit number and explain their reasoning.	Students use the command form of verbs to find a 10 less than a given 2-digit number with mental math.	Students identify and discuss the emotions experienced during math learning.	11-1	Math Terms 2-digit number difference digit equation ones place value tens
11-2 Represent Subtracting Tens	Students use place value to subtract a multiple of 10 from larger multiples of 10.	Students use *is, are,* and *can* to explain how to subtract multiples of 10 from larger multiples of 10 using place value concepts.	Students discuss how a rule or routine can help develop mathematical skills and knowledge and be responsible contributors.	11-2	difference equation ones place value tens
11-3 Subtract Tens	Students use a number chart and an open number line to subtract a multiple of 10 from a larger multiple of 10.	Students use *can* to explain subtracting a multiple of 10 from a larger multiple of 10.	Students explore taking different perspectives on approaches to problem solving.	11-3	difference equation ones open number line place value tens
11-4 Use Addition to Subtract Tens	Students use a known addition equation to find the difference of a multiple of 10 from larger multiples of 10 and explain their reasoning.	Students use *so* to explain their reasoning when finding the difference of a multiple of 10 from larger multiples of 10.	Students practice strategies for persisting at a mathematical task, such as setting a small goal or setting timers for remaining focused.	11-4	difference equation ones place value tens total
Math Probe Showing Problems with Tens Use a number chart or base-ten blocks to determine solutions to word problems.					
11-5 Explain Subtraction Strategies	Students explain the strategies they used to determine the difference of a multiple of 10 from larger multiples of 10.	Students use both present and past tense verbs to explain the strategies they used to subtract multiples of 10.	Students actively listen without interruption as peers describe how they approached a complex mathematical task.	11-5	difference equation ones tens
Unit Review **Fluency Practice**					
Unit Assessment **Performance Task**					

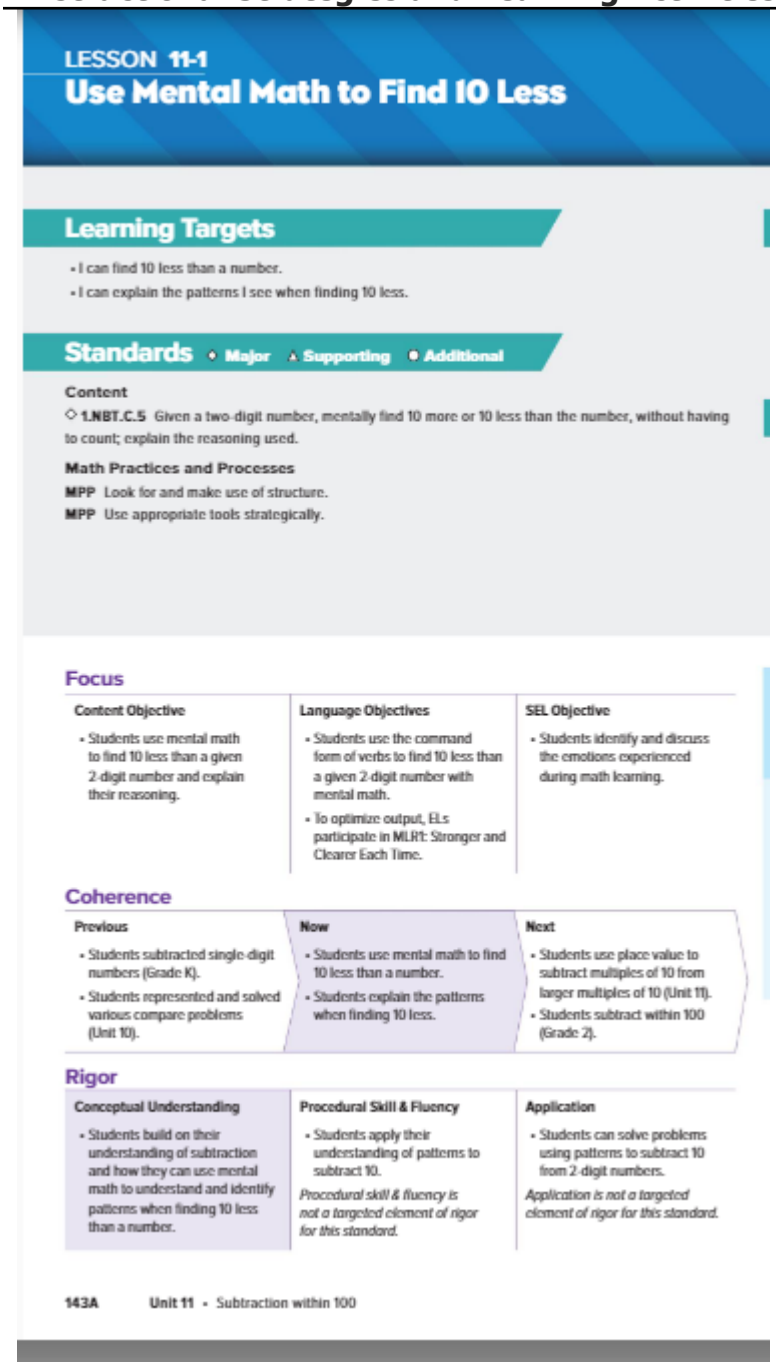
Enduring Understandings

See Above

Essential Questions

See Above

Instructional Strategies and Learning Activities



LESSON 11-1

Use Mental Math to Find 10 Less

Learning Targets

- I can find 10 less than a number.
- I can explain the patterns I see when finding 10 less.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **1.NBT.C.5** Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.

Math Practices and Processes

MPP Look for and make use of structure.
MPP Use appropriate tools strategically.

Focus

Content Objective	Language Objectives	SEL Objective
• Students use mental math to find 10 less than a given 2-digit number and explain their reasoning.	• Students use the command form of verbs to find 10 less than a given 2-digit number with mental math. • To optimize output, ELs participate in MLR1: Stronger and Clearer Each Time.	• Students identify and discuss the emotions experienced during math learning.

Coherence

Previous	Now	Next
• Students subtracted single-digit numbers (Grade K). • Students represented and solved various compare problems (Unit 10).	• Students use mental math to find 10 less than a number. • Students explain the patterns when finding 10 less.	• Students use place value to subtract multiples of 10 from larger multiples of 10 (Unit 11). • Students subtract within 100 (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build on their understanding of subtraction and how they can use mental math to understand and identify patterns when finding 10 less than a number.	• Students apply their understanding of patterns to subtract 10. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students can solve problems using patterns to subtract 10 from 2-digit numbers. *Application is not a targeted element of rigor for this standard.*

LESSON 11-2

Represent Subtracting Tens

Learning Targets

- I can use blocks and drawings to subtract tens.
- I can explain how to use blocks and drawings to subtract tens.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **1.NBT.C.6** Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

MPP Model with mathematics.

Focus

Content Objective

- Students use place value to subtract a multiple of 10 from larger multiples of 10.

Language Objectives

- Students use *is, are,* and *can* to explain how to subtract multiples of 10 from larger multiples of 10 using place value concepts.
- To maximize linguistic and cognitive meta-awareness and optimize output, ELs participate in MLR2: Collect and Display.

SEL Objective

- Students discuss how a rule or routine can help develop mathematical skills and knowledge and be responsible contributors.

Coherence

Previous

- Students subtracted single-digit numbers (Grade K).
- Students used mental math to find 10 less than a number (Unit 11).

Now

- Students use base-ten blocks and place-value concepts to subtract multiples of 10 from a 2-digit number.
- Students explain how to subtract multiples of 10 from a 2-digit number.

Next

- Students use number charts and number lines to subtract multiples of 10 from 2-digit numbers (Unit 11).
- Students subtract within 100 (Grade 2).

Rigor

Conceptual Understanding

- Students build on their understanding of place value as they subtract multiples of 10.

Procedural Skill & Fluency

- Students build proficiency with subtracting multiples of 10.

Procedural skill & fluency is not a targeted element of rigor for this standard.

Application

- Students apply their understanding of subtracting multiples of 10 to solve real-world problems.

Application is not a targeted element of rigor for this standard.

LESSON 11-3

Subtract Tens

Learning Targets

- I can use a number chart and number lines to subtract tens.
- I can explain how to use a number chart and number lines to subtract tens.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **1.NBT.C.6** Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Math Practices and Processes

MPP Look for and make use of structure.

MPP Model with mathematics.

Focus

Content Objective

- Students use a number chart and an open number line to subtract a multiple of 10 from a larger multiple of 10.

Language Objectives

- Students use *can* to explain subtracting a multiple of 10 from a larger multiple of 10.
- To cultivate conversation, ELs participate in MLR7: Compare and Connect.

SEL Objective

- Students explore taking different perspectives on approaches to problem solving.

Coherence

Previous

- Students subtracted single-digit numbers (Grade K).
- Students used place value to subtract a multiple of 10 from a larger multiple of 10 (Unit 11).

Now

- Students subtract multiples of 10 using number charts and open number lines.
- Students explain how to subtract multiples of 10 using number charts and open number lines.

Next

- Students use known addition facts to subtract multiples of 10 (Unit 11).
- Students subtract within 100 (Grade 2).

Rigor

Conceptual Understanding

- Students build on their understanding of place value as they use number charts and number lines to subtract multiples of 10.

Procedural Skill & Fluency

- Students build proficiency with subtracting multiples of 10.

Procedural skill & fluency is not a targeted element of rigor for this standard.

Application

- Students apply their understanding of subtracting multiples of 10.

Application is not a targeted element of rigor for this standard.

LESSON 11-4

Use Addition to Subtract Tens

Learning Targets

- I can use addition to subtract tens.
- I can explain how to use known addition facts to subtract tens.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **1.NBT.C.6** Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

MPP Make sense of problems and persevere in solving them.

Focus

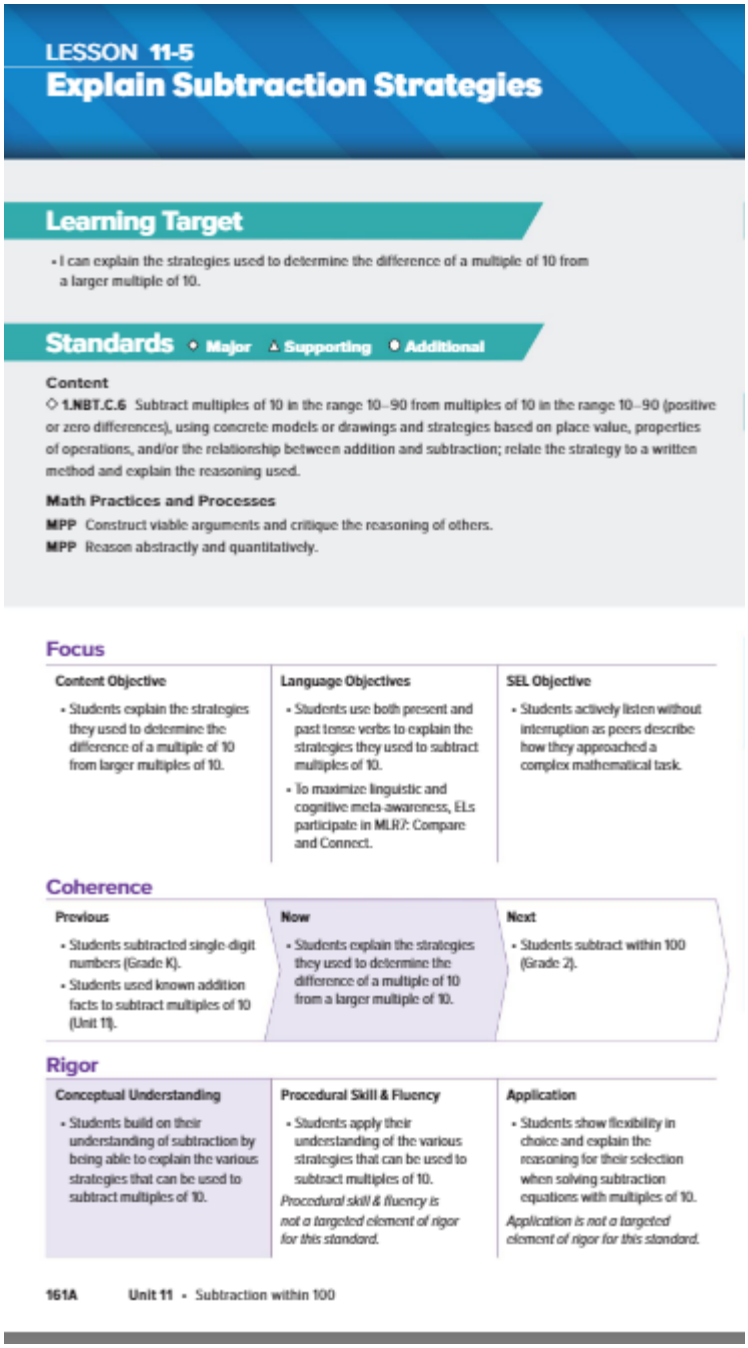
Content Objective	Language Objectives	SEL Objective
• Students use a known addition equation to find the difference of a multiple of 10 from larger multiples of 10 and explain their reasoning.	• Students use so to explain their reasoning when finding the difference of a multiple of 10 from larger multiples of 10. • To support sense-making and optimize output, ELs participate in MLR8: Discussion Supports.	• Students practice strategies for persisting at a mathematical task, such as setting a small goal or setting timers for remaining focused.

Coherence

Previous	Now	Next
• Students subtracted single-digit numbers (Grade K). • Students used number lines and a number chart to subtract multiples of 10 (Unit 11).	• Students use addition to subtract multiples of 10. • Students explain how to use known addition facts to subtract multiples of 10.	• Students explain strategies for subtracting multiples of 10 (Unit 11). • Students subtract within 100 (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build on their understanding of the inverse relationship between addition and subtraction as they use known addition facts as a strategy to subtract multiples of 10.	• Students build proficiency with using addition facts to subtract multiples of 10. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students apply their understanding of subtracting multiples of 10 to solve real-world problems. *Application is not a targeted element of rigor for this standard.*



LESSON 11-5

Explain Subtraction Strategies

Learning Target

- I can explain the strategies used to determine the difference of a multiple of 10 from a larger multiple of 10.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **1.NBT.C.6** Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Math Practices and Processes

MPP Construct viable arguments and critique the reasoning of others.

MPP Reason abstractly and quantitatively.

Focus

Content Objective	Language Objectives	SEL Objective
• Students explain the strategies they used to determine the difference of a multiple of 10 from larger multiples of 10.	• Students use both present and past tense verbs to explain the strategies they used to subtract multiples of 10. • To maximize linguistic and cognitive meta-awareness, ELs participate in MLR7: Compare and Connect.	• Students actively listen without interruption as peers describe how they approached a complex mathematical task.

Coherence

Previous	Now	Next
• Students subtracted single-digit numbers (Grade K). • Students used known addition facts to subtract multiples of 10 (Unit 11).	• Students explain the strategies they used to determine the difference of a multiple of 10 from a larger multiple of 10.	• Students subtract within 100 (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build on their understanding of subtraction by being able to explain the various strategies that can be used to subtract multiples of 10.	• Students apply their understanding of the various strategies that can be used to subtract multiples of 10. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students show flexibility in choice and explain the reasoning for their selection when solving subtraction equations with multiples of 10. *Application is not a targeted element of rigor for this standard.*

Integration of Career Readiness, Life Literacies and Key Skills

9.1.2.CR.1	Recognize ways to volunteer in the classroom, school and community.
9.4.2.CI.1	Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2).
9.1.2.CAP.1	Make a list of different types of jobs and describe the skills associated with each job.
9.4.2.CI.2	Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
9.1.2. FI.1	Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards).

9.4.2.CT.1	Gather information about an issue, such as climate change, and collaboratively brainstorm ways to solve the problem (e.g., K-2-ETS1-1, 6.3.2.GeoGI.2).
9.4.2.CT.3	Use a variety of types of thinking to solve problems (e.g., inductive, deductive).
9.4.2.DC.3	Explain how to be safe online and follow safe practices when using the internet (e.g., 8.1.2.NI.3, 8.1.2.NI.4).
9.1.2.PB.2	Explain why an individual would choose to save money.
9.4.2.DC.7	Describe actions peers can take to positively impact climate change (e.g., 6.3.2.CivicsPD.1).
9.4.2.GCA.1	Articulate the role of culture in everyday life by describing one's own culture and comparing it to the cultures of other individuals (e.g., 1.5.2.C2a, 7.1.NL.IPERS.5, 7.1.NL.IPERS.6).
9.4.2.IML.2	Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).
9.4.2.TL.1	Identify the basic features of a digital tool and explain the purpose of the tool (e.g., 8.2.2.ED.1).
9.4.2.TL.2	Create a document using a word processing application.
9.4.2.TL.5	Describe the difference between real and virtual experiences.
9.4.2.TL.6	Illustrate and communicate ideas and stories using multiple digital tools (e.g., SL.2.5.).

Technology and Design Integration

8.1.2.CS.3	Describe basic hardware and software problems using accurate terminology.
8.1.2.NI.1	Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network.
8.1.2.NI.3	Create a password that secures access to a device. Explain why it is important to create unique passwords that are not shared with others.
8.1.2.DA.1	Collect and present data, including climate change data, in various visual formats.
8.1.2.DA.2	Store, copy, search, retrieve, modify, and delete data using a computing device.
8.1.2.DA.3	Identify and describe patterns in data visualizations.
8.1.2.DA.4	Make predictions based on data using charts or graphs.
8.1.2.AP.1	Model daily processes by creating and following algorithms to complete tasks.
8.1.2.AP.4	Break down a task into a sequence of steps.
8.2.2.ED.2	Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.
8.2.2.EC.1	Identify and compare technology used in different schools, communities, regions, and parts of the world.

Interdisciplinary Connections

LA.RI.1	Reading Informational Text
	Key Ideas and Details
LA.RI.1.1	Ask and answer questions about key details in a text.
LA.RI.1.2	Identify the main topic and retell key details of a text.
	Craft and Structure

LA.RI.1.4	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.
LA.RI.1.5	Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.
LA.RI.1.6	Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.
LA.RI.1.7	Use the illustrations and details in a text to describe its key ideas.
LA.SL.1.1	Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.
LA.SL.1.1.B	Build on others' talk in conversations by responding to the comments of others through multiple exchanges.
LA.SL.1.1.C	Ask questions to clear up any confusion about the topics and texts under discussion.
LA.L.1.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

Differentiation

- Understand that gifted students, just like all students, come to school to learn and be challenged.
- Pre-assess your students. Find out their areas of strength as well as those areas you may need to address before students move on.
- Consider grouping gifted students together for at least part of the school day.
- Plan for differentiation. Consider pre-assessments, extension activities, and compacting the curriculum.
- Use phrases like "You've shown you don't need more practice" or "You need more practice" instead of words like "qualify" or "eligible" when referring to extension work.
- Encourage high-ability students to take on challenges. Because they're often used to getting good grades, gifted students may be risk averse.

- **Definitions of Differentiation Components**:

    - Content – the specific information that is to be taught in the lesson/unit/course of instruction.
    - Process – how the student will acquire the content information.
    - Product – how the student will demonstrate understanding of the content.
    - Learning Environment – the environment where learning is taking place including physical location and/or student grouping

Differentiation occurring in this unit:

Exit tickets to discover student needs and misunderstandings

Modifications and Accommodations

Refer to QSAC EXCEL SMALL SPED ACCOMMOCATIONS spreadsheet in this discipline.

Modifications and Accommodations used in this unit:

Benchmark Assessments

Benchmark Assessments are given periodically (e.g., at the end of every quarter or as frequently as once per month) throughout a school year to establish baseline achievement data and measure progress toward a standard or set of academic standards and goals.

Schoolwide Benchmark assessments:

Aimsweb benchmarks 3X a year

Linkit Benchmarks 3X a year

DRA

Additional Benchmarks used in this unit:

Formative Assessments

Assessment allows both instructor and student to monitor progress towards achieving learning objectives, and can be approached in a variety of ways. **Formative assessment** refers to tools that identify misconceptions, struggles, and learning gaps along the way and assess how to close those gaps. It includes effective tools for helping to shape learning, and can even bolster students' abilities to take ownership of their learning when they understand that the goal is to improve learning, not apply final marks (Trumbull and Lash, 2013). It can include students assessing themselves, peers, or even the instructor, through writing, quizzes, conversation, and more. In short, formative assessment occurs throughout a class or course, and seeks to improve student achievement of learning objectives through approaches that can support specific student needs (Theal and Franklin, 2010, p. 151).

Formative Assessments used in this unit:

Teacher Observation

Checklists

Questions and Discussions

Quizzes

Summative Assessments

summative assessments evaluate student learning, knowledge, proficiency, or success at the conclusion of an instructional period, like a unit, course, or program. Summative assessments are almost always formally graded and often heavily weighted (though they do not need to be). Summative assessment can be used to great effect in conjunction and alignment with formative assessment, and instructors can consider a variety of ways to combine these approaches.

Summative assessments for this unit:

End of unit assessments

Instructional Materials

See Above

1.NBT.C.5	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
1.NBT.C.6	Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.