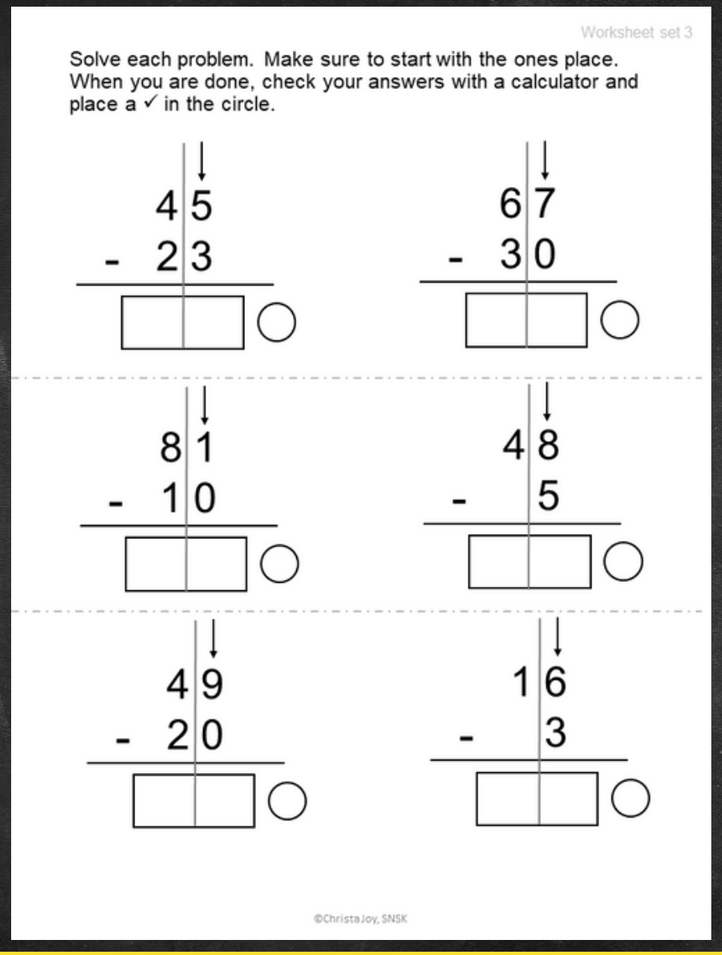
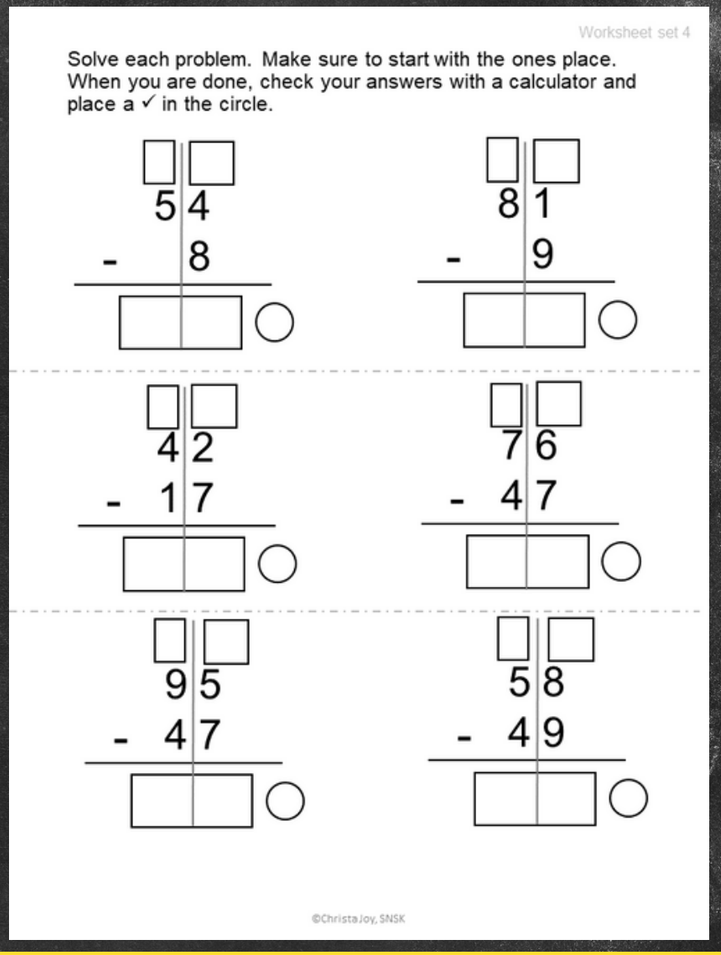
DOUBLE DIGIT SUBTRACTION



with and without borrowing



INCLUDES GOOGLE SLIDES

This unit was created with this guy in mind. He has autism and an intellectual disability. He is a non-reader, can count to 20, but still struggles with a most basic math skills. With some support he is able to do this unit and enjoys the challenge. He is my tester!!

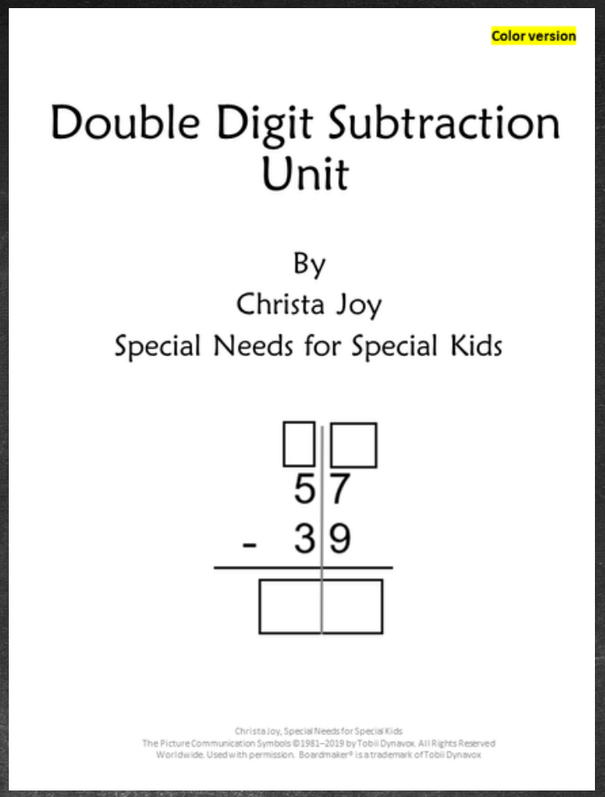


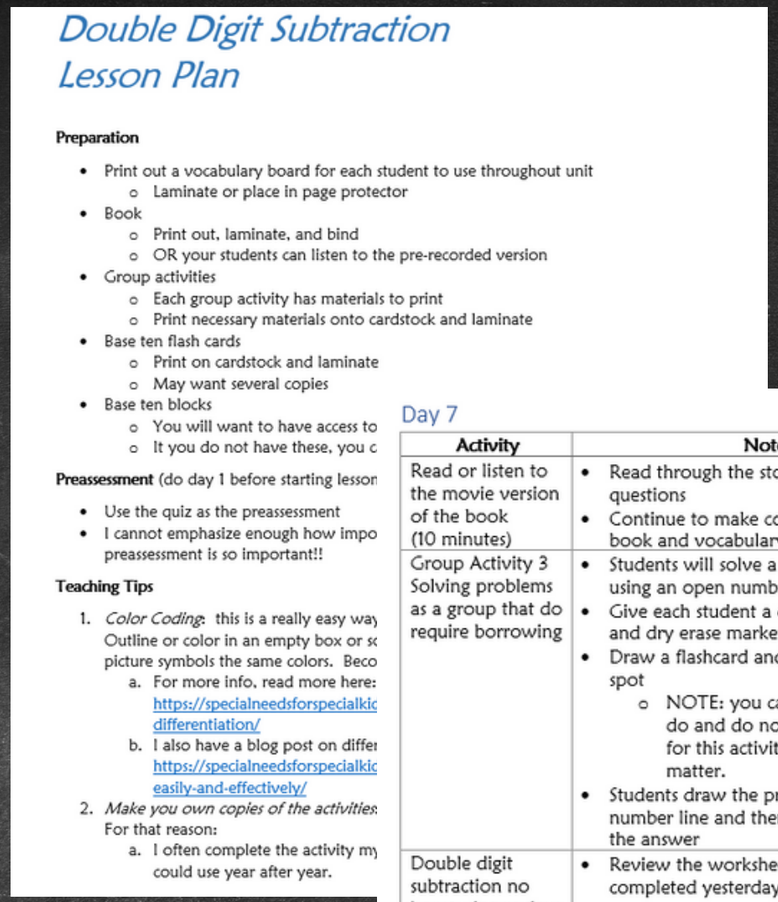
Table of Contents

Also included in this resource as separate files:

- Links and directions to digital activities
- PowerPoint **(this is the book in the lesson plan)**
- Voice recorded PowerPoint
- Activities in black and white

This unit contains 13 days of material that is in both printable and digital formats. I have included a detailed lesson plan to help you make the most of everything in this unit including daily group and individual activities.

It comes in 2 separate files. One in color and one in black and white.



Double Digit Subtraction Lesson Plan

Preparation

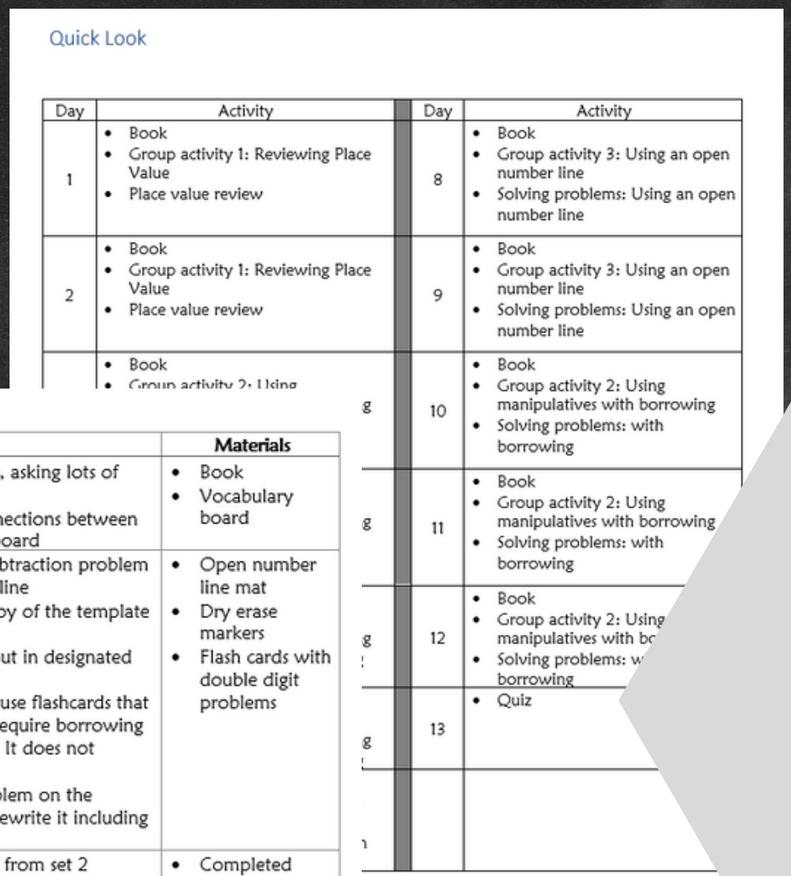
- Print out a vocabulary board for each student to use throughout unit
  - Laminate or place in page protector
- Book
  - Print out, laminate, and bind
  - OR your students can listen to the pre-recorded version
- Group activities
  - Each group activity has materials to print
  - Print necessary materials onto cardstock and laminate
- Base ten flash cards
  - Print on cardstock and laminate
  - May want several copies
- Base ten blocks
  - You will want to have access to
  - It you do not have these, you c

Preassessment (do day 1 before starting lesson

- Use the quiz as the preassessment
- I cannot emphasize enough how impo preassessment is so important!!

Teaching Tips

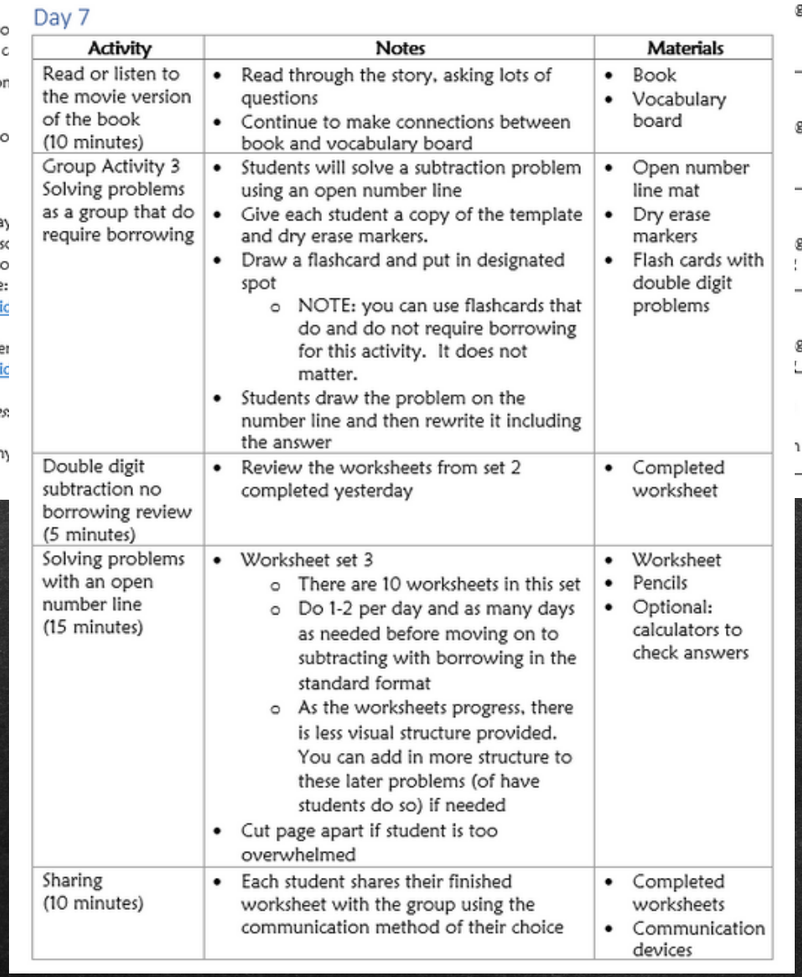
1. *Color Coding*: this is a really easy way Outline or color in an empty box or s picture symbols the same colors. Beco
   a. For more info, read more here: https://specialneedsforspecialkic differentiation/
   b. I also have a blog post on differ https://specialneedsforspecialkic easily-and-effectively/
2. *Make you own copies of the activities* For that reason:
   a. I often complete the activity my could use year after year.



Quick Look

Day	Activity
1	• Book • Group activity 1: Reviewing Place Value • Place value review
2	• Book • Group activity 1: Reviewing Place Value • Place value review
	• Book • Group activity 2: Using

Day	Activity
8	• Book • Group activity 3: Using an open number line • Solving problems: Using an open number line
9	• Book • Group activity 3: Using an open number line • Solving problems: Using an open number line
10	• Book • Group activity 2: Using manipulatives with borrowing • Solving problems: with borrowing
11	• Book • Group activity 2: Using manipulatives with borrowing • Solving problems: with borrowing
12	• Book • Group activity 2: Using manipulatives with bo • Solving problems: w borrowing
13	• Quiz



Day 7

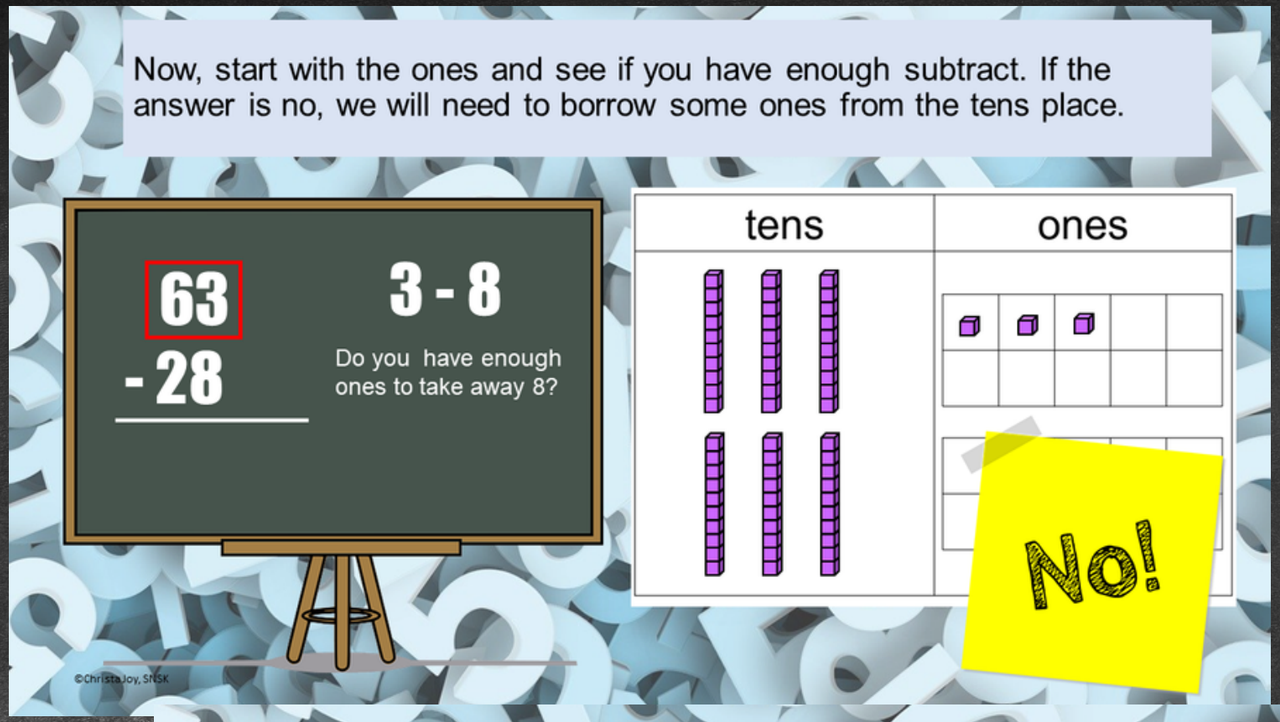
Activity	Notes	Materials
Read or listen to the movie version of the book (10 minutes)	• Read through the story, asking lots of questions • Continue to make connections between book and vocabulary board	• Book • Vocabulary board
Group Activity 3 Solving problems as a group that do require borrowing	• Students will solve a subtraction problem using an open number line • Give each student a copy of the template and dry erase markers. • Draw a flashcard and put in designated spot ○ NOTE: you can use flashcards that do and do not require borrowing for this activity. It does not matter. • Students draw the problem on the number line and then rewrite it including the answer	• Open number line mat • Dry erase markers • Flash cards with double digit problems
Double digit subtraction no borrowing review (5 minutes)	• Review the worksheets from set 2 completed yesterday	• Completed worksheet

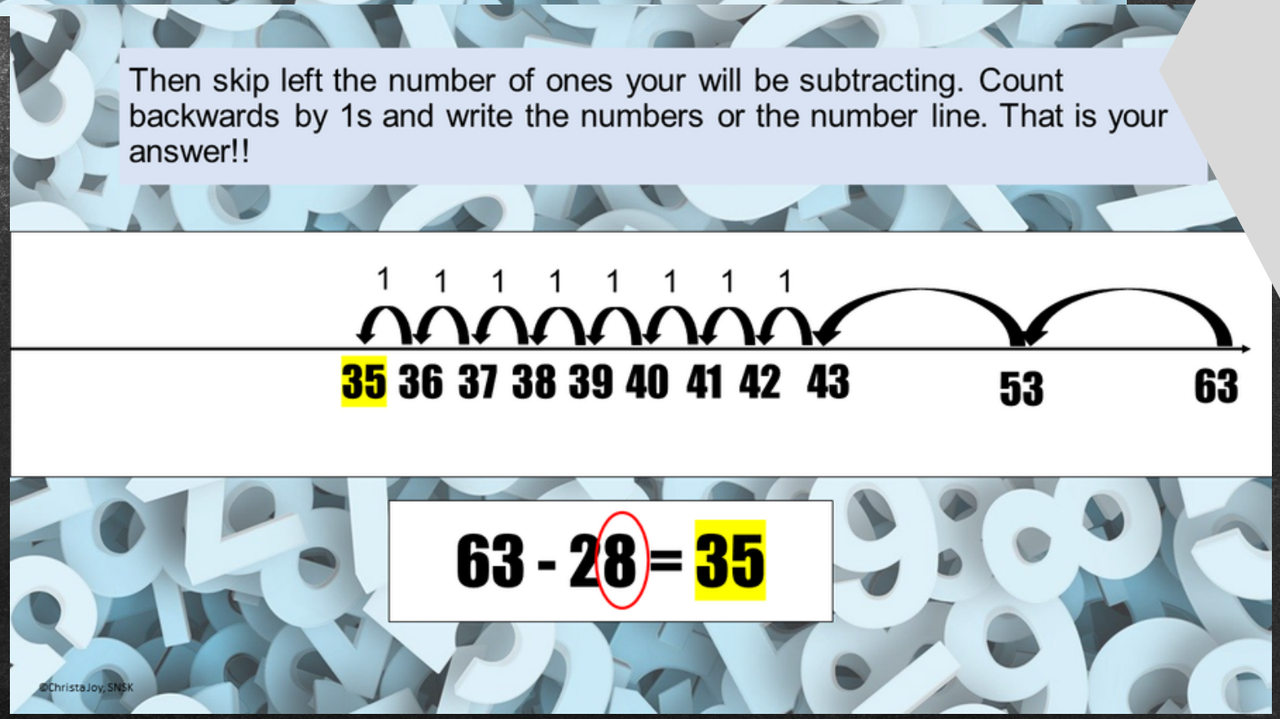
Solving problems with an open number line (15 minutes)	• Worksheet set 3
	  ○ There are 10 worksheets in this set
	  ○ Do 1-2 per day and as many days as needed before moving on to subtracting with borrowing in the standard format
	  ○ As the worksheets progress, there is less visual structure provided. You can add in more structure to these later problems (of have students do so) if needed
	• Cut page apart if student is too overwhelmed
		• Worksheet
		• Pencils
		• Optional: calculators to check answers

Sharing (10 minutes)	• Each student shares their finished worksheet with the group using the communication method of their choice	• Completed worksheets • Communication devices

The lesson plans contain:

- Overall tips for teaching students with significant needs
- A quick look at what you will do each day
- Detailed instructions on how that day's lesson should run





There is a 41 page book with this unit using simple text and photos.

It comes in a PowerPoint version as well as a voice-recorded movie (mp4).

Group activity #1

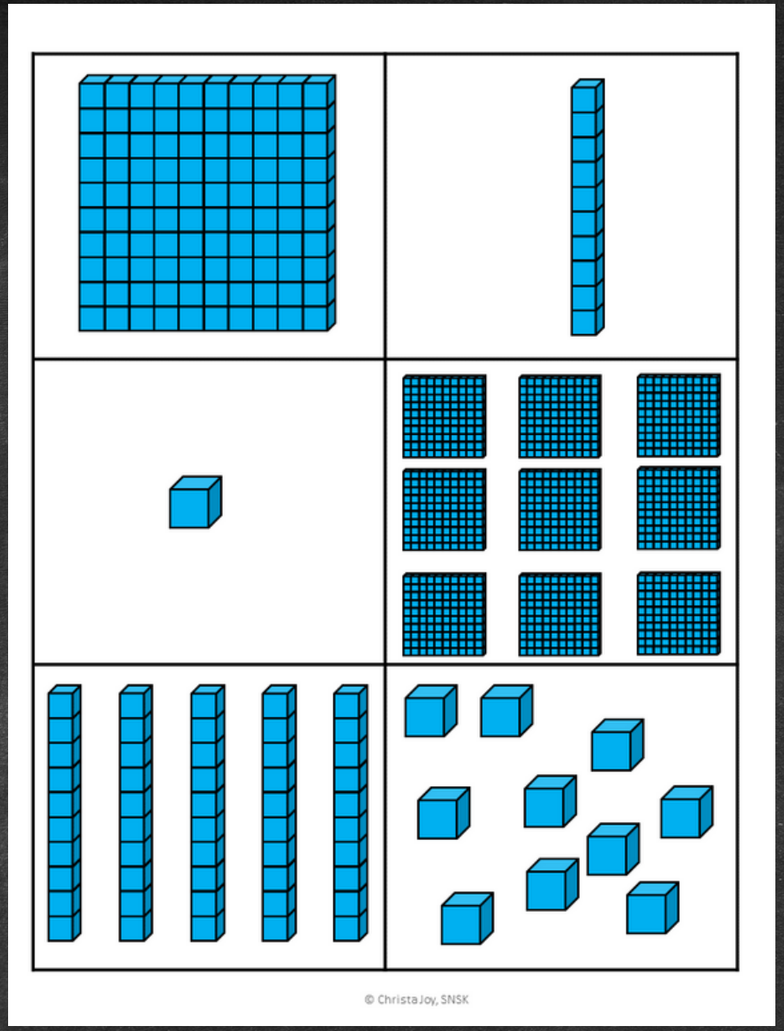
This group activity reviews place value.

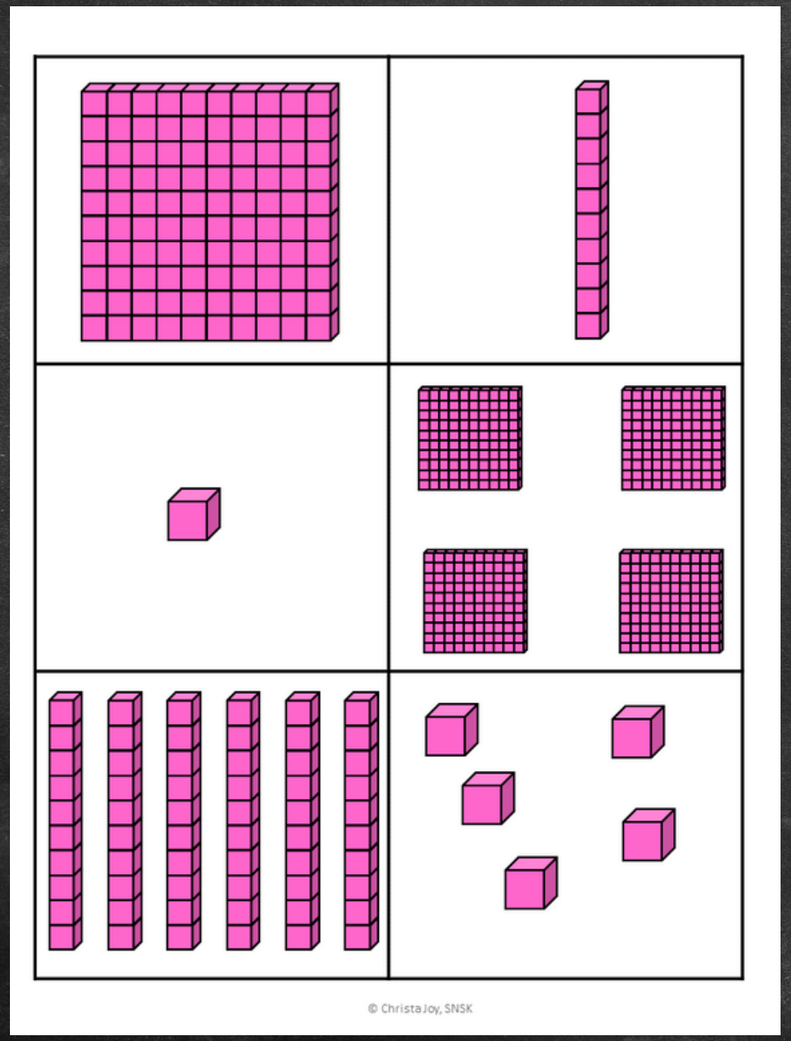
Place Value Practice

- Print one place value chart for each student and laminate.
- Give student:
  - Place value chart
  - 100 flats, 10 sticks, 1 units
  - or use flashcards
  - Dry erase marker
- Write a number on the board.
- Students will build the number on their mat.
- They will then practice writing it in expanded form (be sure to add the + sign)
- Record the totals in the place value chart at the bottom.

	hundreds	tens	ones
Build using Base 10 Blocks			
Write in expanded form			

Final number: ____





There are 7 pages of flashcards you can use if you do not have Base 10 blocks.

Suggestions for additional group activities included.

Group activity #2

Double digit subtraction using manipulatives

- Have students draw a card with an subtraction problem.
  - This with a ✓ in the top corner require borrowing.
  - I left enough space so you can add the vertical line dividing ones and tens places
- You will need:
  - Place value mat (laminated) for each student. 2 different orientations are provided.
  - Base 10 blocks or snap cubes.
  - Dry erase markers
  - White boards
- Students will build the first number on the mat usi correct units.
  - Note: if using snap cubes, students should co blocks in a tower to form a group of 10.
- Students will then determine if they have enough subtract.
- If students have to borrow, they should break apa exchange a ten rod from the tens place and place place using the second grid.
- Optional: Students will write the problem on the w and the answer, counting the blocks they have on

tens	ones

✓ 49 - 22	✓ 23 - 17
✓ 25 - 8	✓ 71 - 29
✓ 34 - 18	✓ 56 - 29

Students will solve subtraction problems using manipulatives.

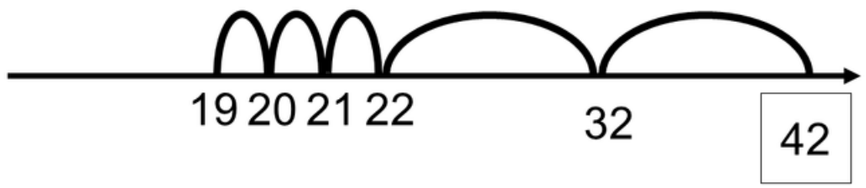
Includes 20 pages of flashcards, half that require borrowing and half that do not.

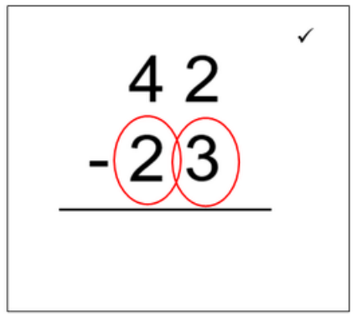
Group activity #3

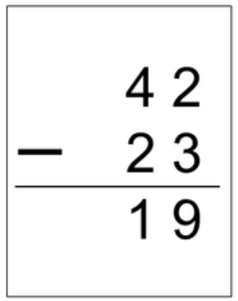
Double digit subtraction using open number lines

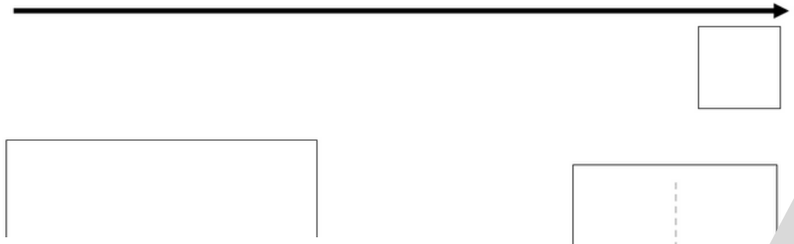
- You will need:
  - Open number line mat. There are 2 included. One has a dashed line to help students line up place value when they rewrite the problem.
  - Dry erase markers
  - White boards
  - Flash cards from Group Activity #2 (using manipulatives)
- Give each student a copy of the open number line that is laminated or in a page protector
- Have students draw a card with an subtraction problem.
  - This with a ✓ in the top corner require borrowing.
  - I left enough space so you can add the vertical line dividing ones and tens places
- Steps
  1. Draw top number all the way on the right side of the number line in the empty box
  2. Circle how many tens are in the second number.
  3. Draw large hops above the line that equal the number of tens in the second number.
  4. Write numbers below the line where each hop ended (counting by 10 backwards)
  5. Circle how mane ones are in the second number.
  6. Draw small skips above the line that equal the number of ones in the second number
  7. Write numbers below the line where each skip ended (counting by 1 backwards)
  8. Rewrite problem in the

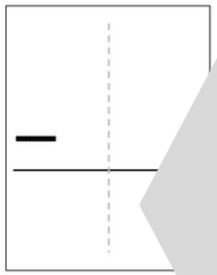
Example:









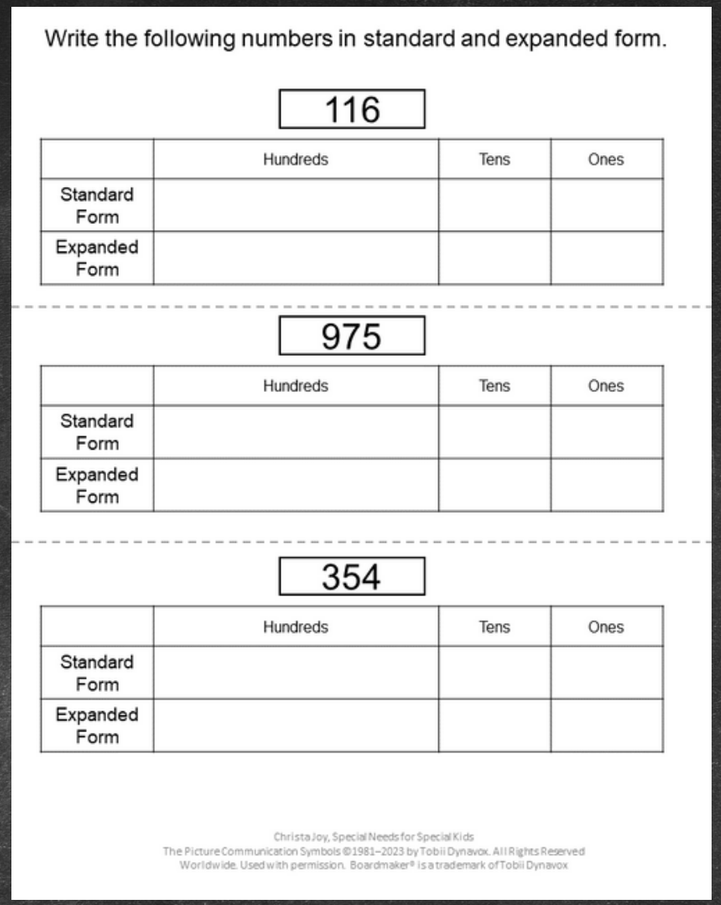


Students will solve subtraction problems using an open number line.

There are 5 worksheet sets in this unit that scaffold skills needed for double-digit subtraction with borrowing.

- Place value review
- Writing problems vertically
- Subtracting using an open number line
- Subtracting without borrowing
- Subtracting with borrowing

Each set has a decreasing amount of visual structure when solving problems.



Write the following numbers in standard and expanded form.

116

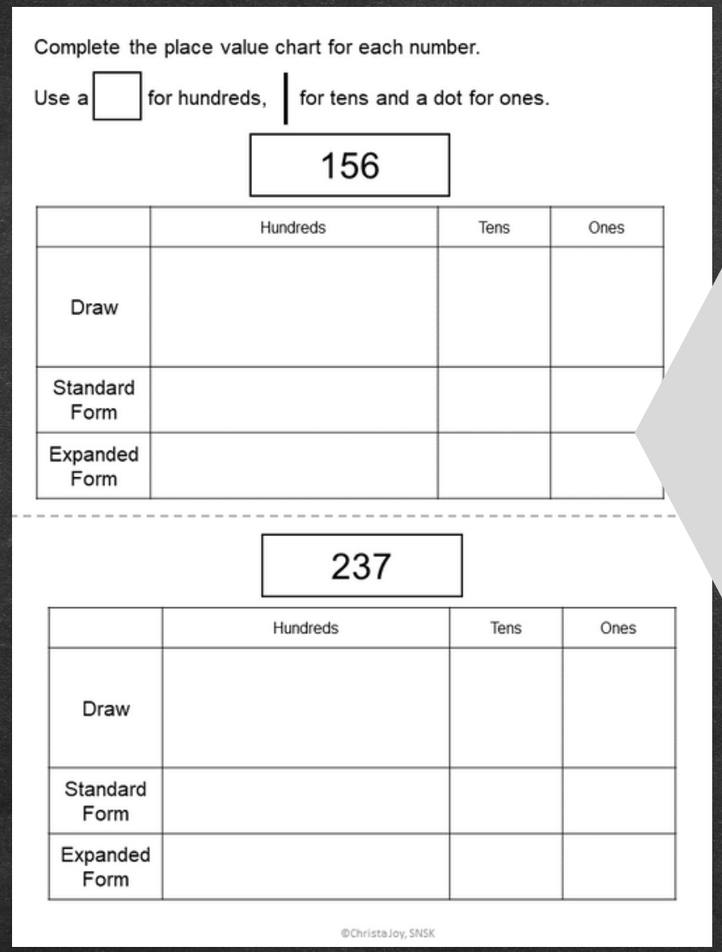
	Hundreds	Tens	Ones
Standard Form			
Expanded Form			

975

	Hundreds	Tens	Ones
Standard Form			
Expanded Form			

354

	Hundreds	Tens	Ones
Standard Form			
Expanded Form			



Complete the place value chart for each number.

Use a ▢ for hundreds, | for tens and a dot for ones.

156

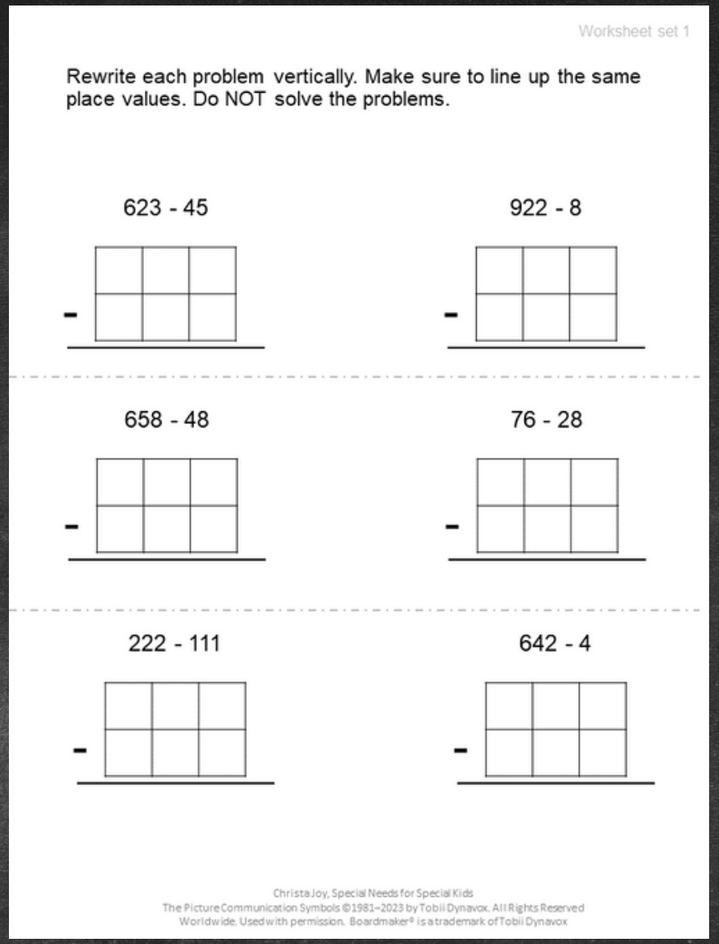
	Hundreds	Tens	Ones
Draw			
Standard Form			
Expanded Form			

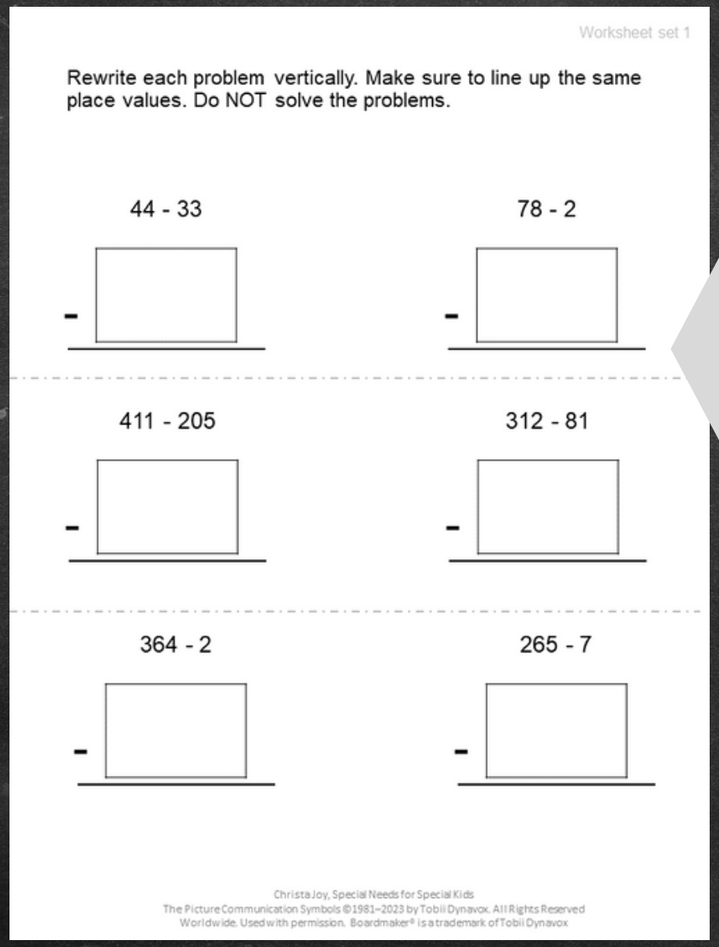
237

	Hundreds	Tens	Ones
Draw			
Standard Form			
Expanded Form			

worksheet set 1

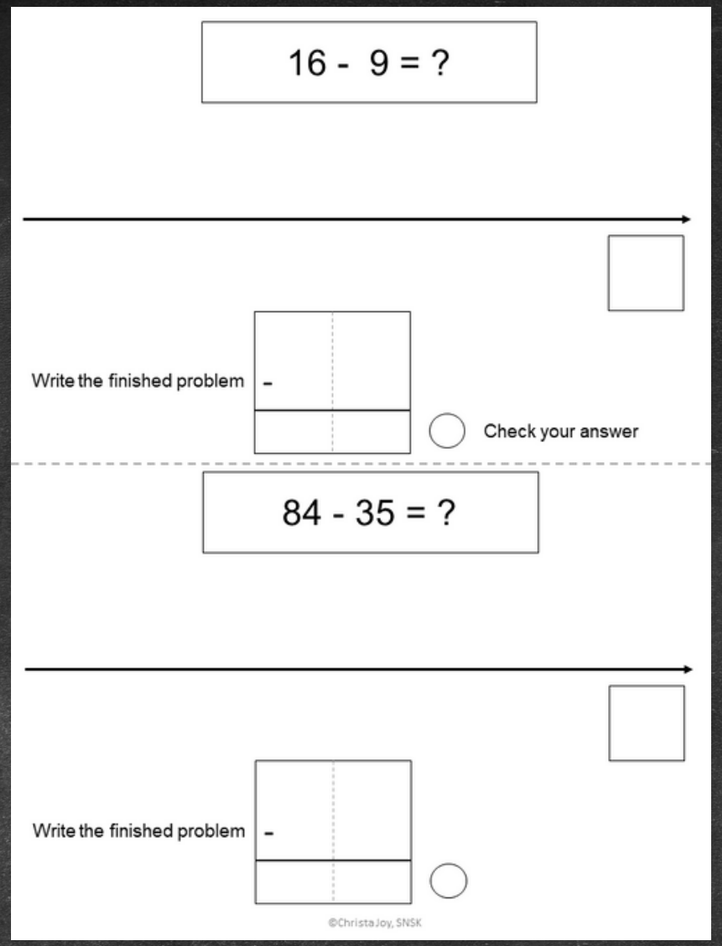
There are 4 worksheets for students to review place value.

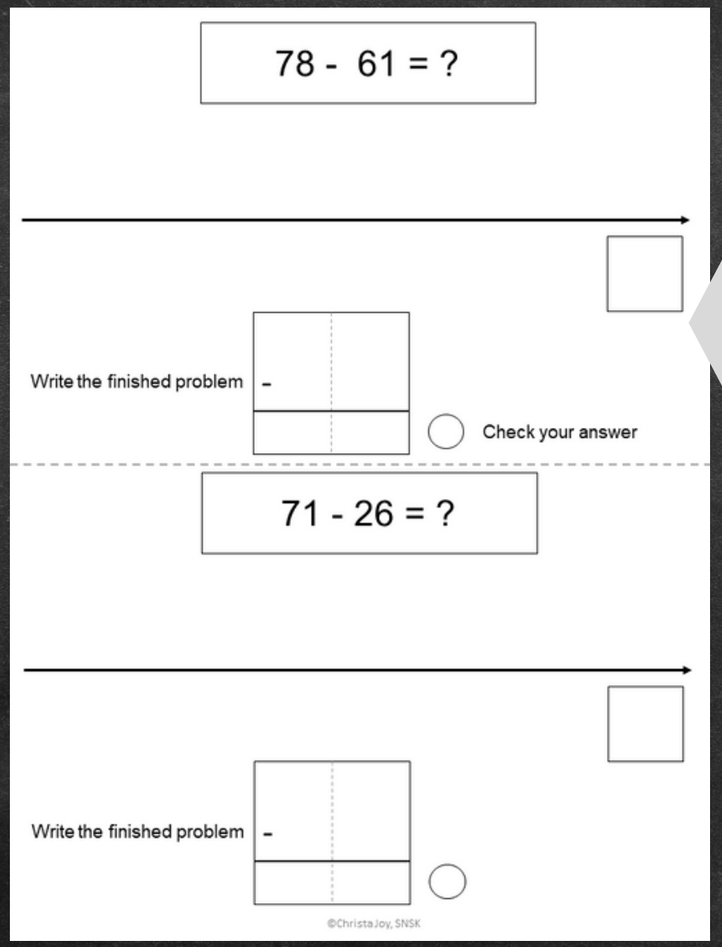




worksheet set 2

There are 6 worksheets for students to practice writing problems vertically making sure to line up place values. They do NOT solve these problems.

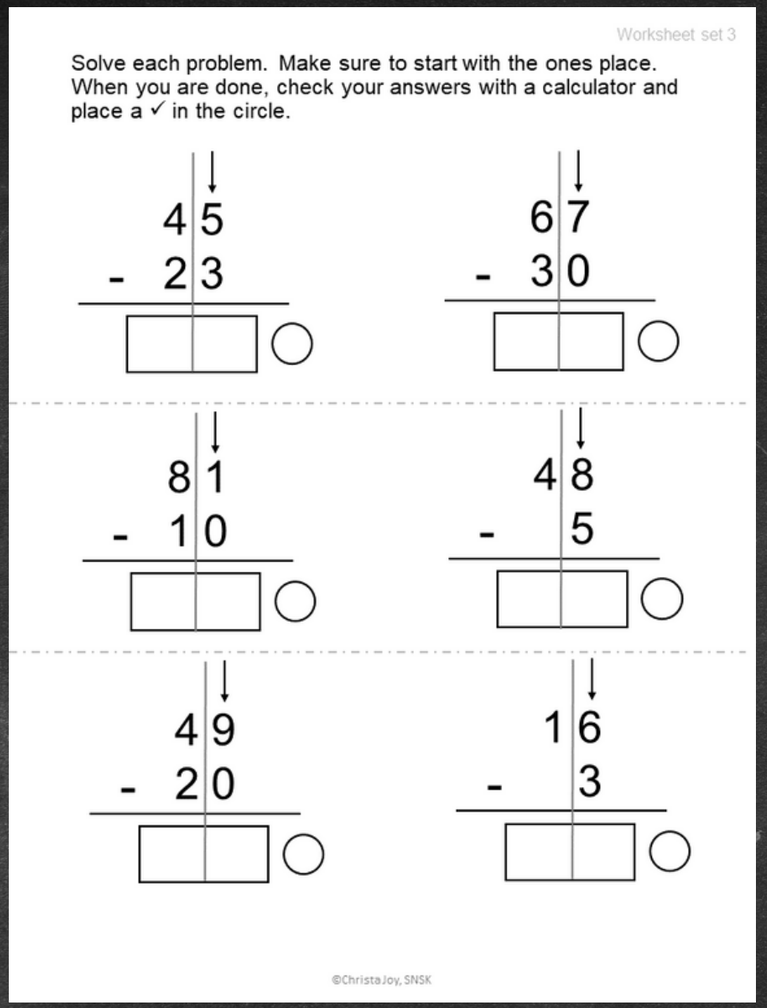


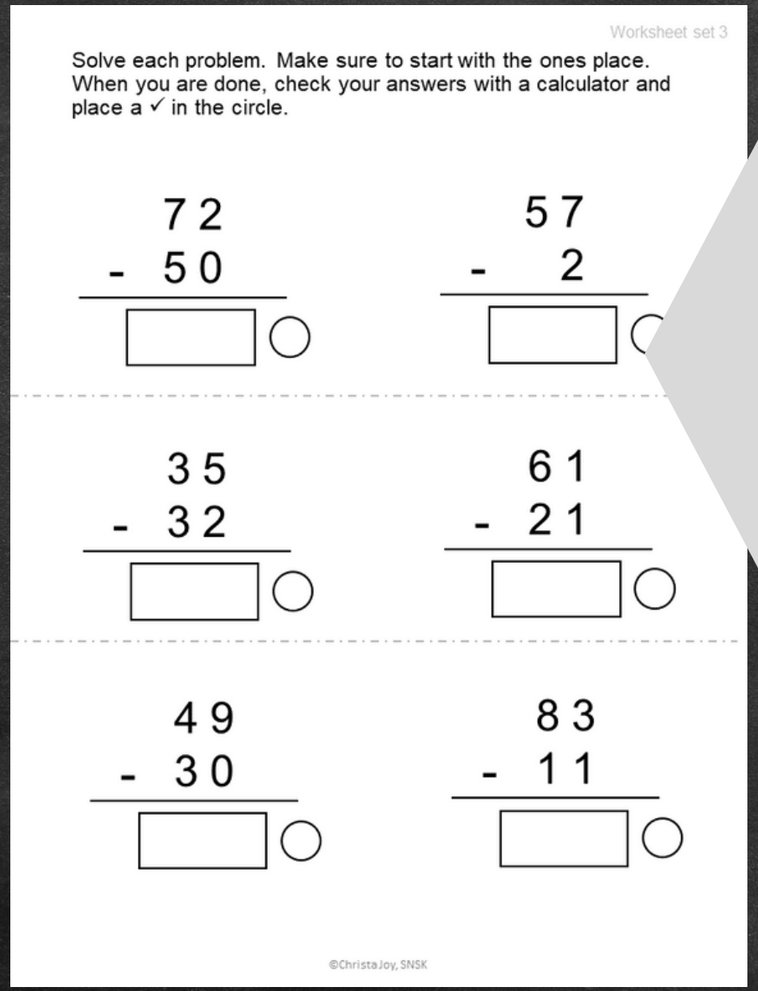


worksheet set 3

There are 10 worksheets for students to practice subtracting problems using an open numbers line.

NOTE: This is taught in the book included in the unit.

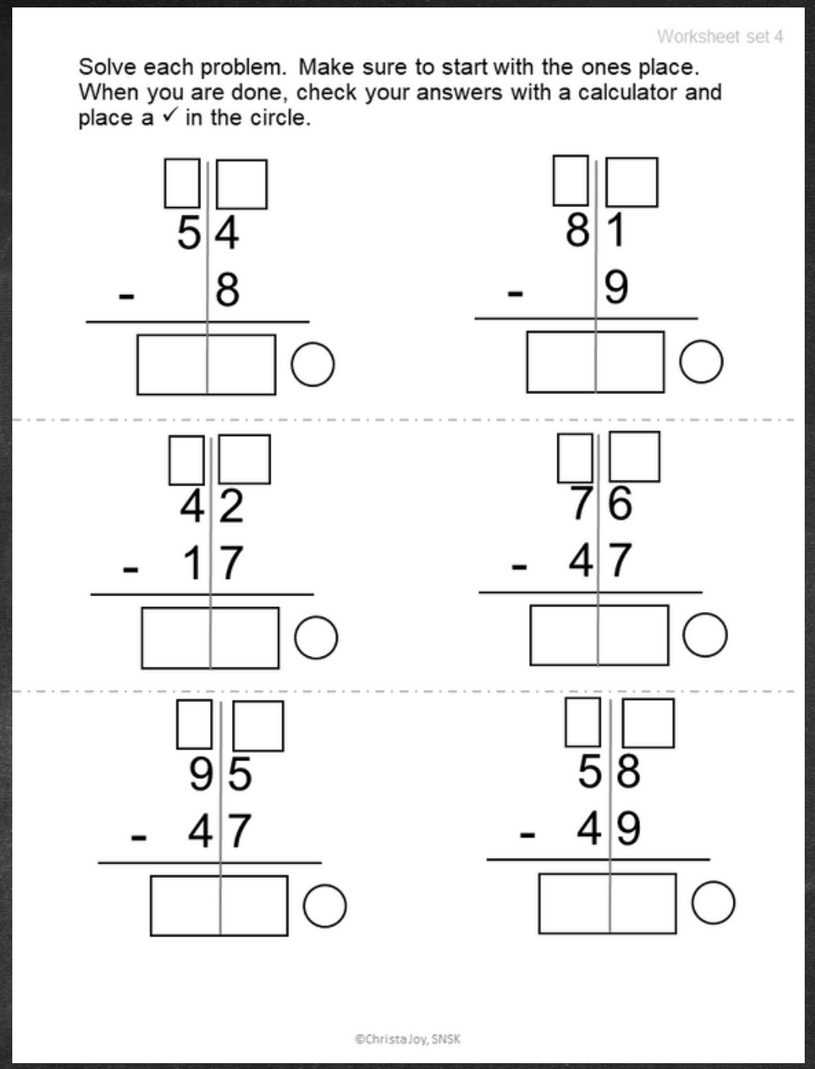


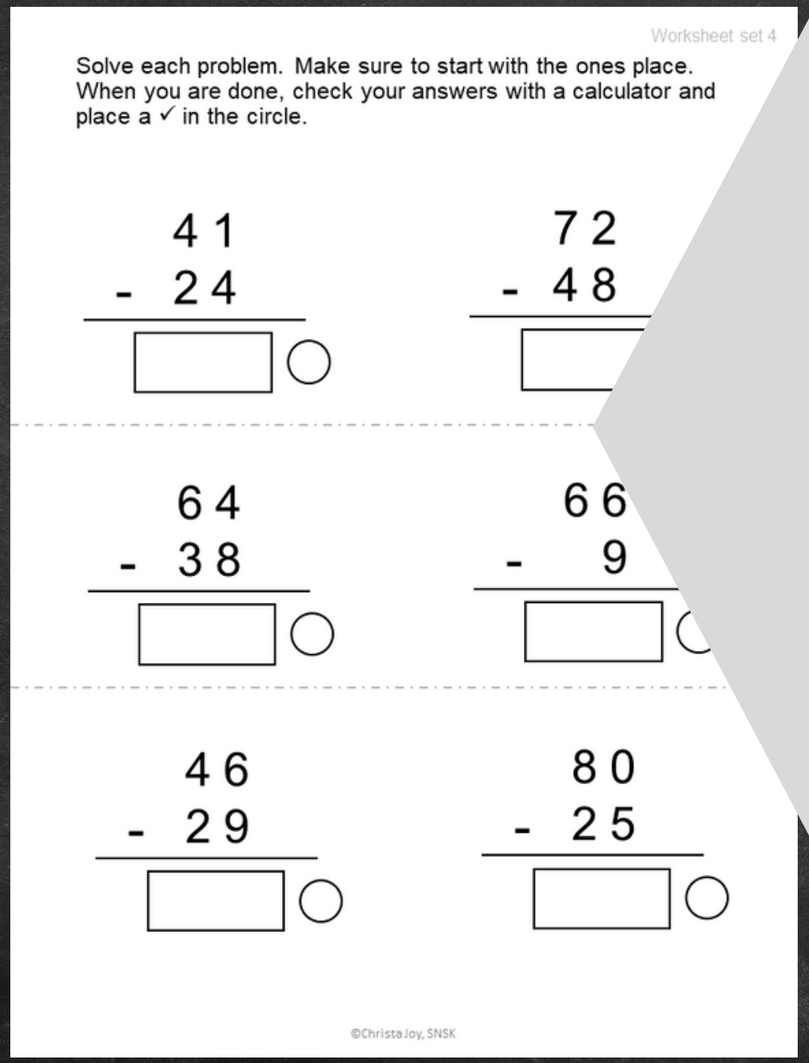


worksheet set 4

There are 10 worksheets for students to subtract numbers without borrowing. There is less visual structure as you progress through the worksheets.

Students are encouraged to check their answers with a calculator.

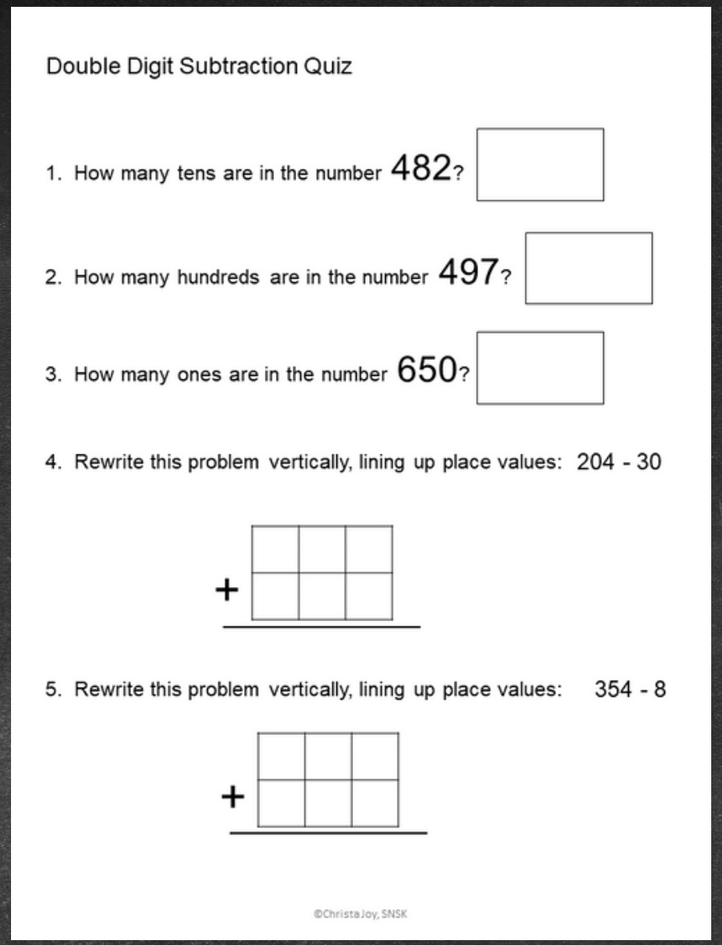




worksheet set 5

There are 10 worksheets for students to subtract numbers with borrowing. There is less visual structure as you progress through the worksheets.

Students are encouraged to check their answers with a calculator.



Double Digit Subtraction Quiz

1. How many tens are in the number 482?

2. How many hundreds are in the number 497?

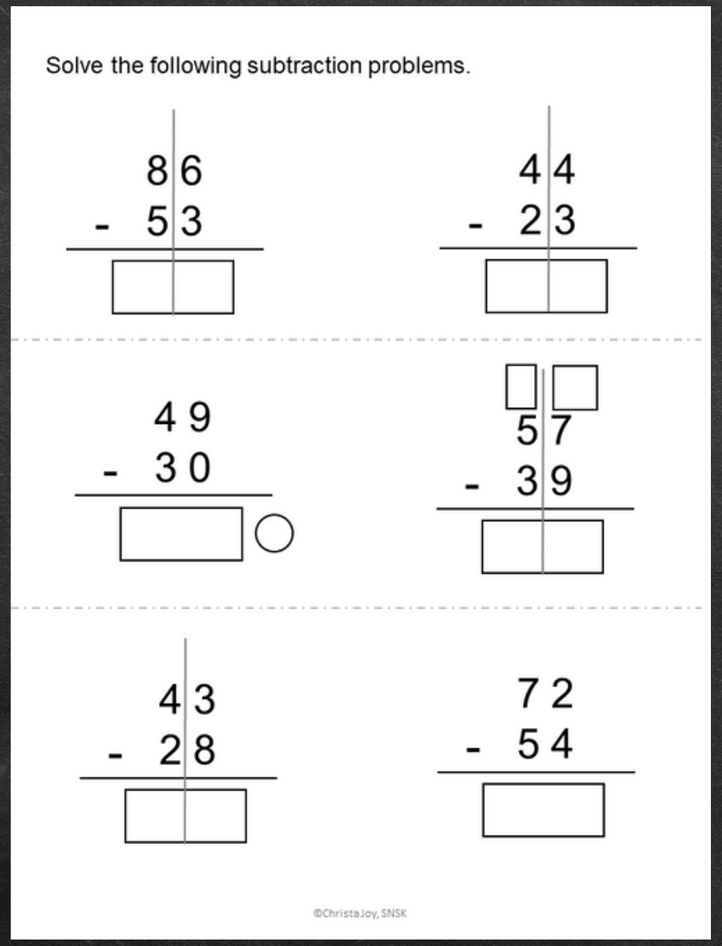
3. How many ones are in the number 650?

4. Rewrite this problem vertically, lining up place values: 204 - 30

+

5. Rewrite this problem vertically, lining up place values: 354 - 8

+



Solve the following subtraction problems.

86 - 53

44 - 23

49 - 30

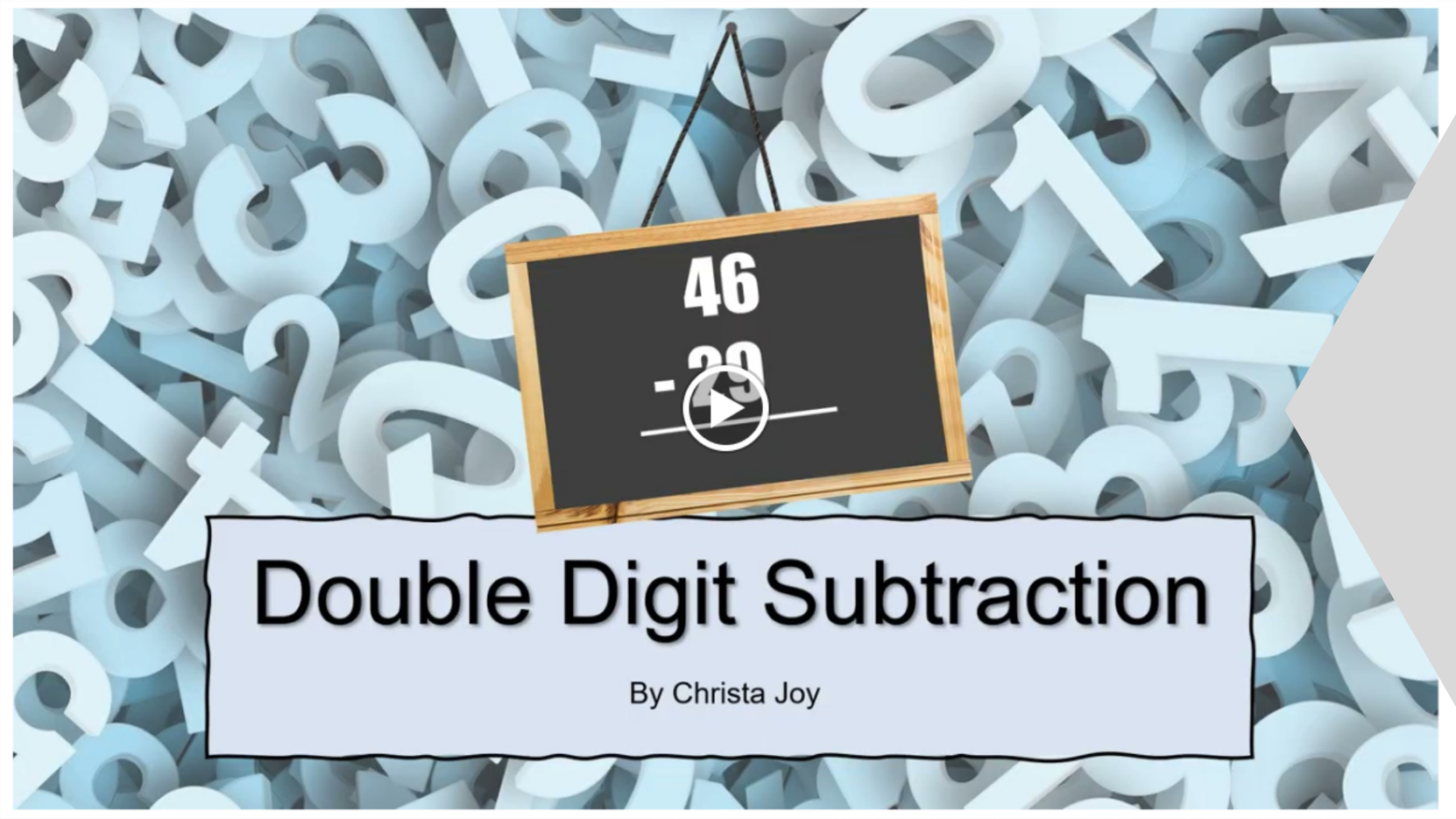
57 - 39

43 - 28

72 - 54

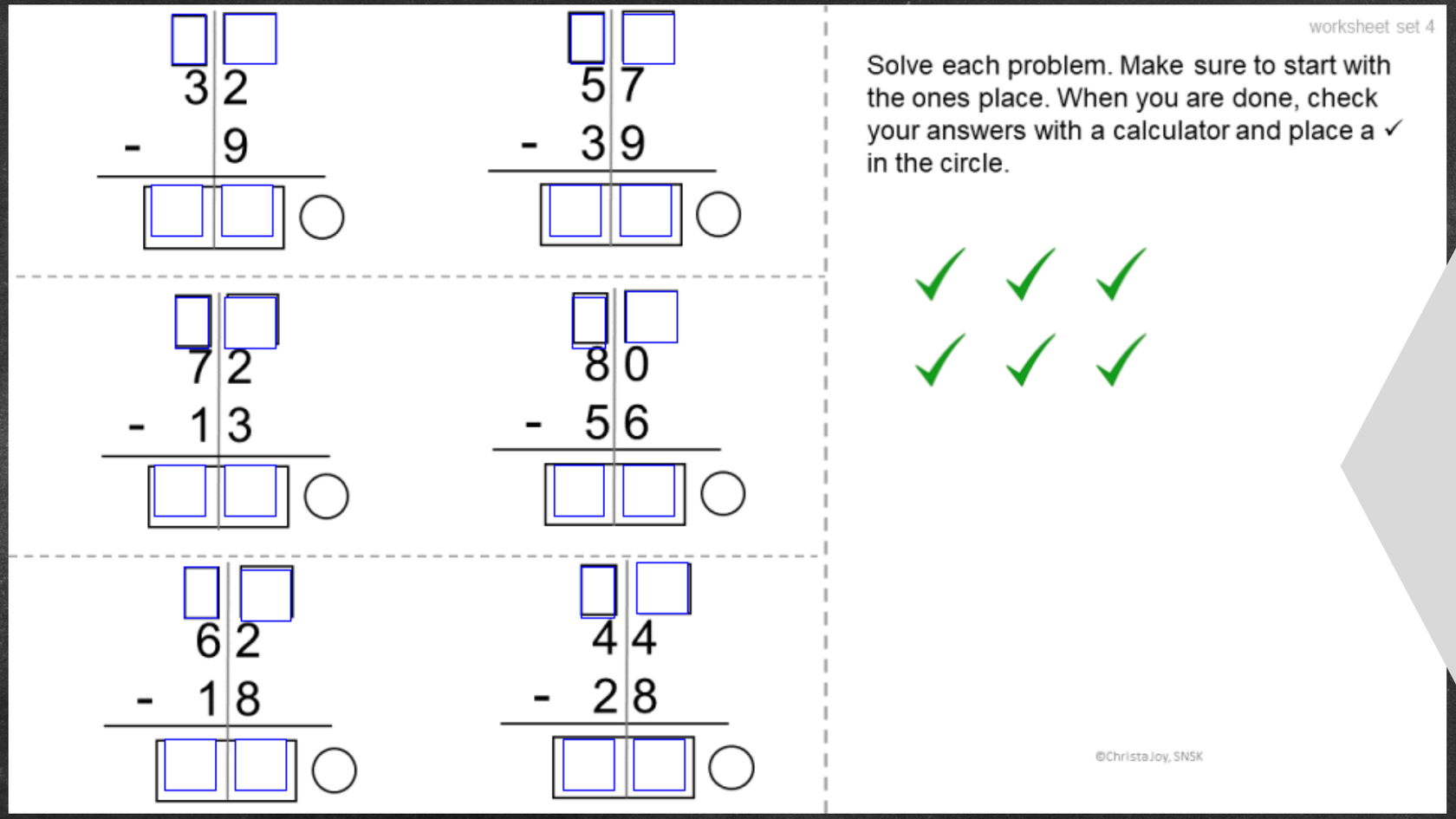
There is a 7 question quiz to assess understanding.

This is also used as the pre-assessment to measure growth.



There are also digital versions of the printable activities included in this unit. There is a movie version of both books that is narrated and animated.

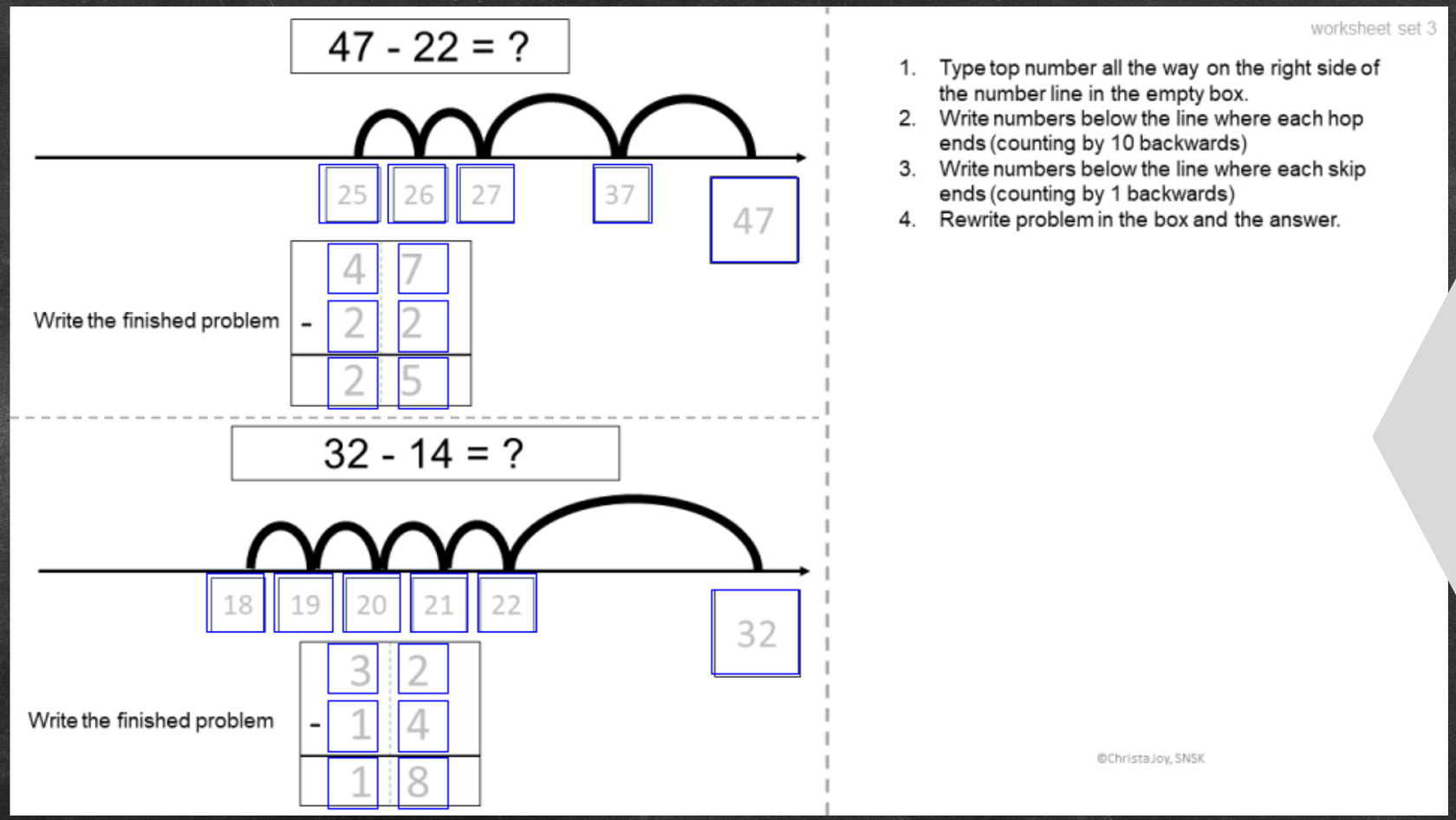
Great for review



There is a set of slides for each learning level.

In this first set of slides, students type in their answers for some of the slides.

Perfect for all learning levels.



In this set of slides, students will still type in some answers but there is additional visual support included (gray numbers to match to.)

This resource comes in a zipped folder. You will need to unzip the folder to access all the contents which include:

- Subtraction activities in color
- Subtraction activities in black and white
- Voice-recorded PowerPoint shows
- Double Digit Subtraction book (PowerPoint) to use with activities
- Links and directions to digital activities