Eureka Math

4th Grade
Module 1
Lesson 13

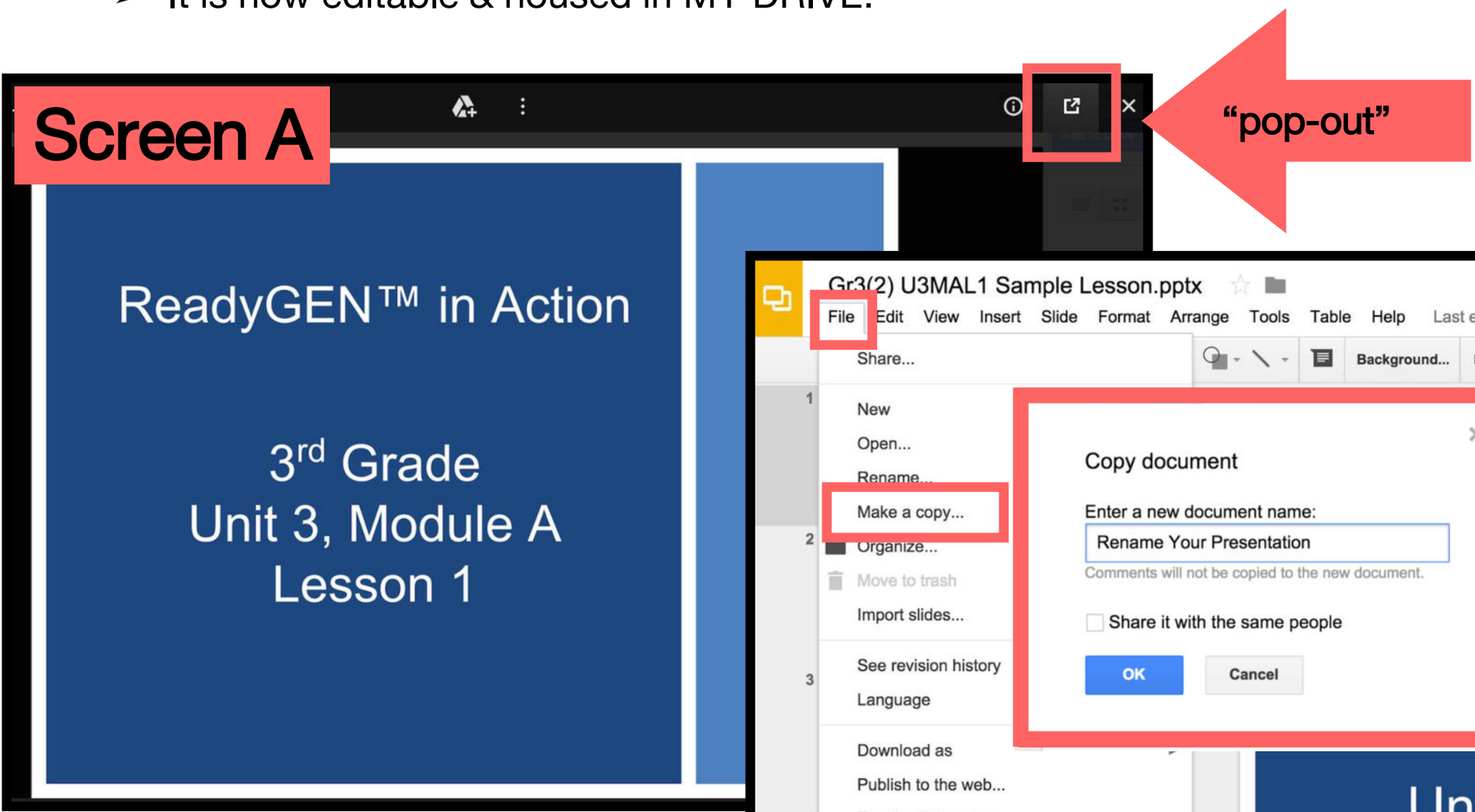
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this project!

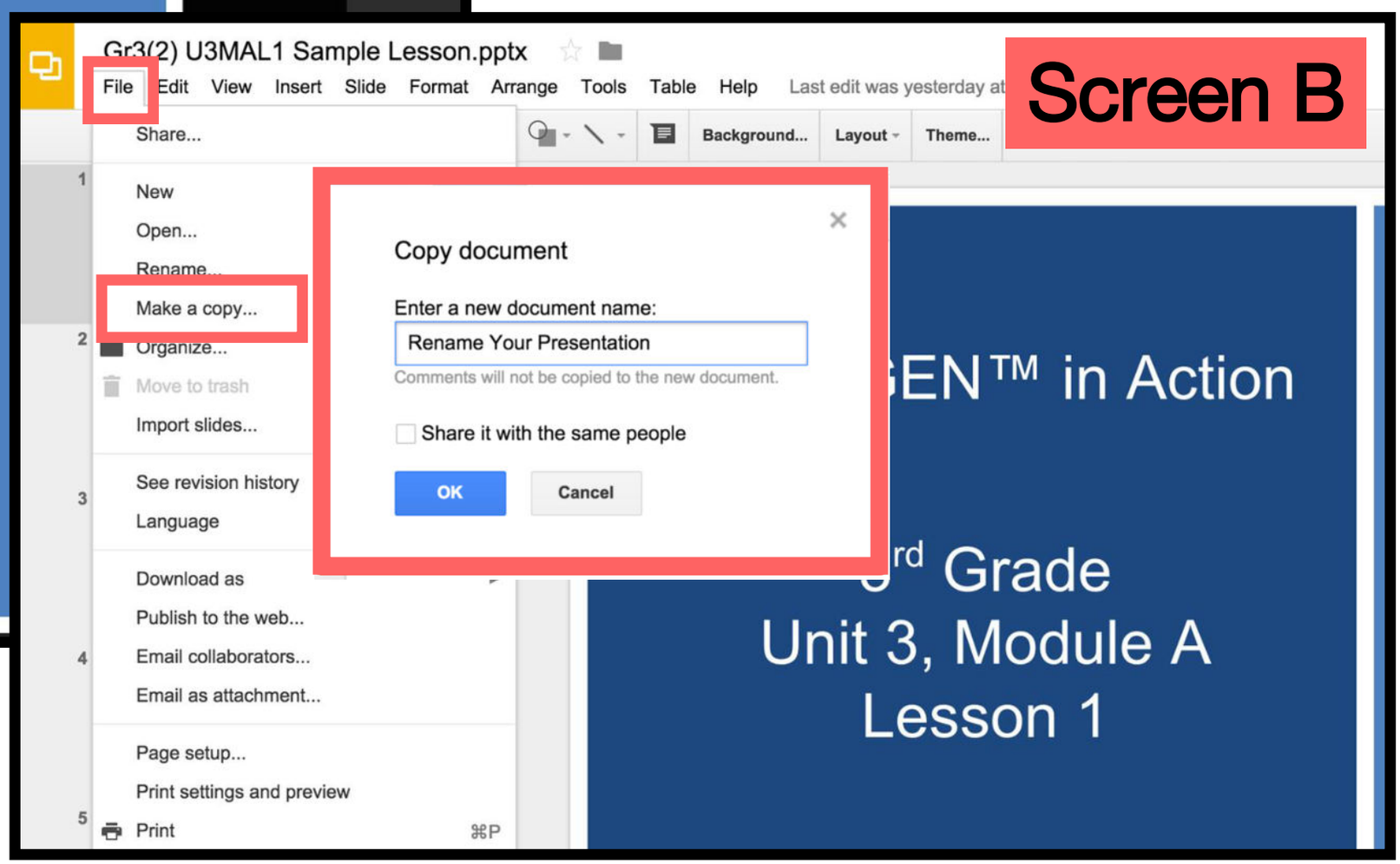
Directions for customizing presentations are available on the next slide.

Customize this Slideshow

Reflecting your Teaching Style and Learning Needs of Your Students

- When the Google Slides presentation is opened, it will look like Screen A.
- Click on the “pop-out” button in the upper right hand corner to change the view.
- The view now looks like Screen B.
- Within Google Slides (not Chrome), choose FILE.
- Choose MAKE A COPY and rename your presentation.
- Google Slides will open your renamed presentation.
- It is now editable & housed in MY DRIVE.



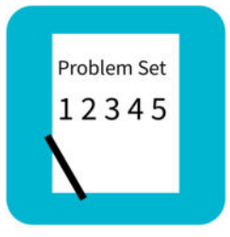


Icons

Read, Draw, Write

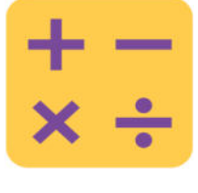
Learning Target

Personal White Board



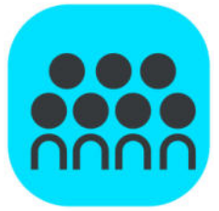
Problem Set

Manipulatives Needed



Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

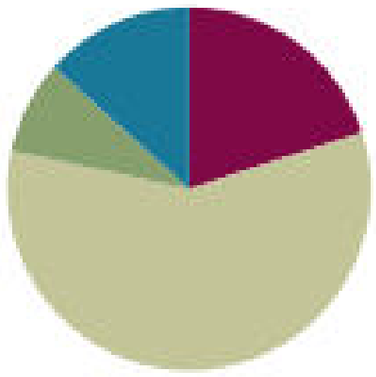
Small Group Time

Lesson 13

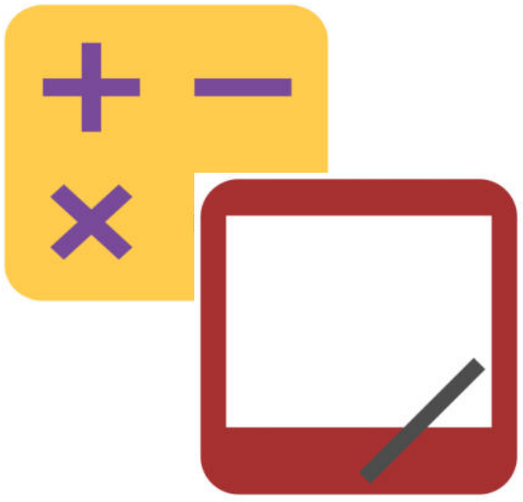
Objective: Use place value understanding to decompose to smaller units once using the standard subtraction algorithm, and apply the algorithm to solve word problems using tape diagrams.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Application Problem	(5 minutes)
Concept Development	(35 minutes)
Student Debrief	(8 minutes)
Total Time	**(60 minutes)**



I can use place value understanding to decompose to smaller units once using the standard subtraction algorithm, and apply the algorithm to solve word problems using tape diagrams.



Find the Sum

316 + 473 =____

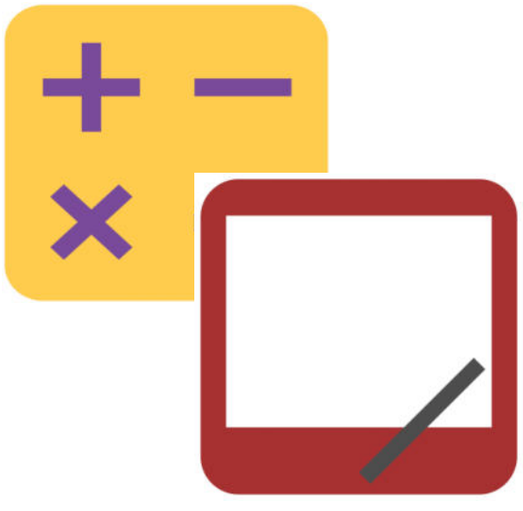
Solve by writing an addition sentence horizontally or vertically.

6,065 + 3,731 =_____

13,806 + 4,393 =_____

5,928 + 124 =_____

629 + 296 + 962 =_____



Subtract Common Units

707

Say the number in unit form.

707 – 202 =____.

Say the subtraction sentence and answer in unit form.

Write the subtraction sentence on your personal white boards.

Subtract Common Units

909 – 404 =____.

9,009 – 5,005 =____.

11,011 – 4,004 =____.

13,013 – 8,008 =____.

Application Problem

Jennifer texted 5,849 times in January. In February, she texted 1,263 more times than in January. What was the total number of texts that Jennifer sent in the two months combined? Explain how to know if the answer is reasonable.

Subtraction with Regrouping

4,259

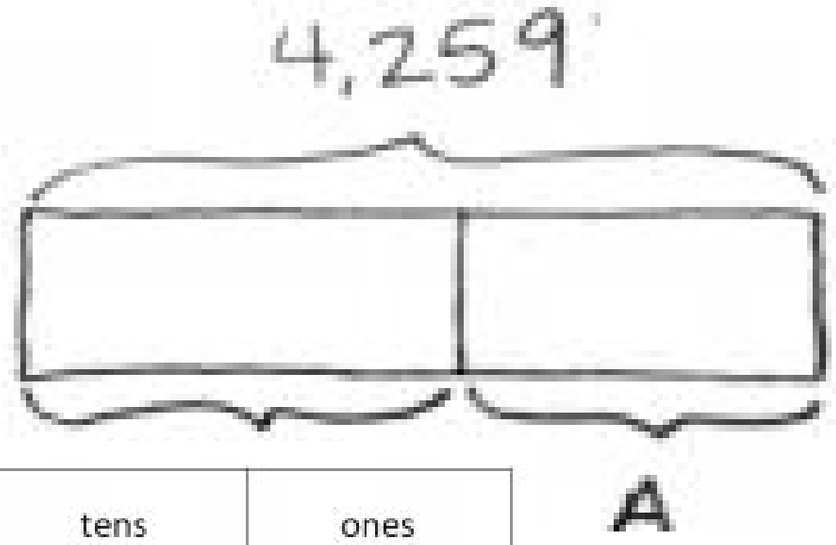
<u>– 2,171</u>

Let’s draw a tape diagram to represent this problem. What is the whole?

We record that above the tape as the whole and record the known part of 2,171 under the tape. It is your turn to draw a tape diagram. Mark the unknown part of the diagram with the variable A

Subtraction with Regrouping

4,259



4, 2 5 9

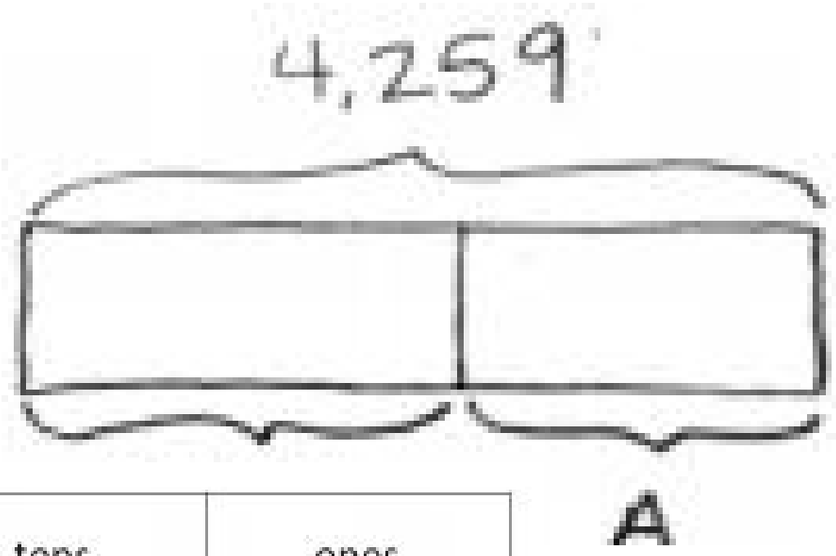
– 2, 1 7 1

thousands	hundreds	tens	ones
,			

Model the whole, 4,259, using place value disks on your place value chart.

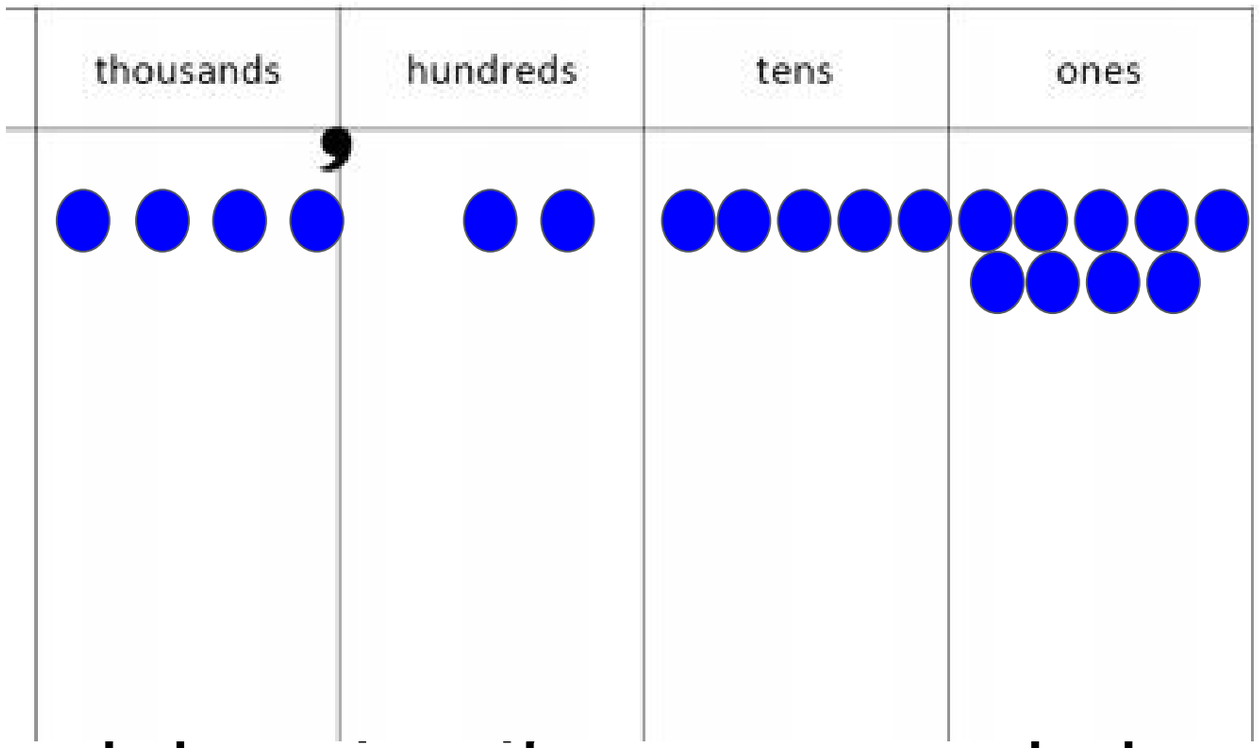
Why don’t we model the part we’re subtracting?

4,259



4,259

<u>– 2,171</u>



First, let's determine if we are ready to subtract. We look across the top number, from right to left, to see if there are enough units in each column. Let's look at the ones column. Are there enough ones in the top number to subtract the ones in the bottom number?

Subtraction with Regrouping

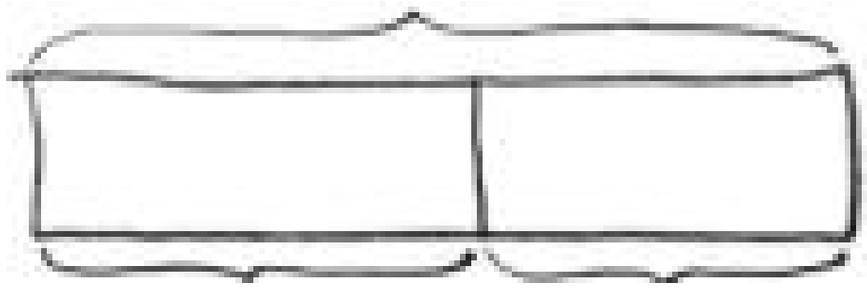
6, 3 1

4

_____

– 3, 1 3 3

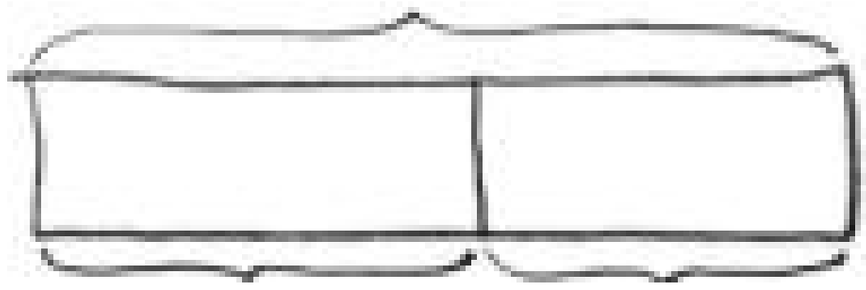
thousands	hundreds	tens	ones
,			



Draw a tape diagram and use number disks to model the subtraction problem.

Subtraction with Regrouping

$$\begin{array}{r} 23,422 \\ -\ 11,510 \\ \hline \end{array}$$

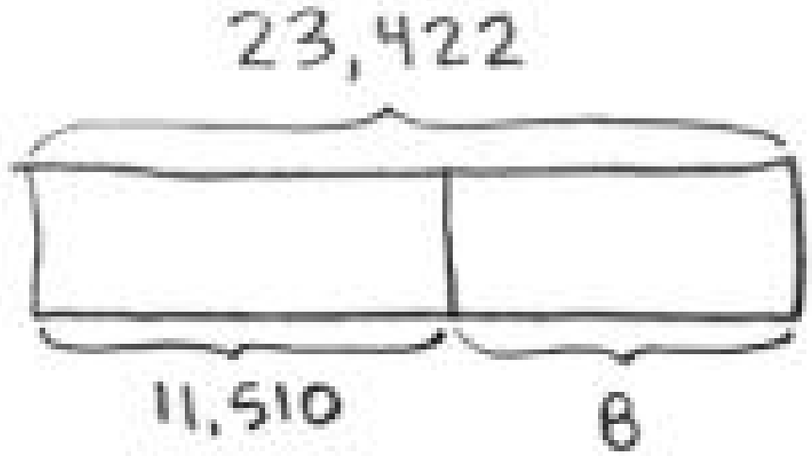


With your partner, read this problem and draw a tape diagram. Label the whole, the known part, and use the variable B for the unknown part.

Subtraction with Regrouping

23,422

<u>– 11,510</u>

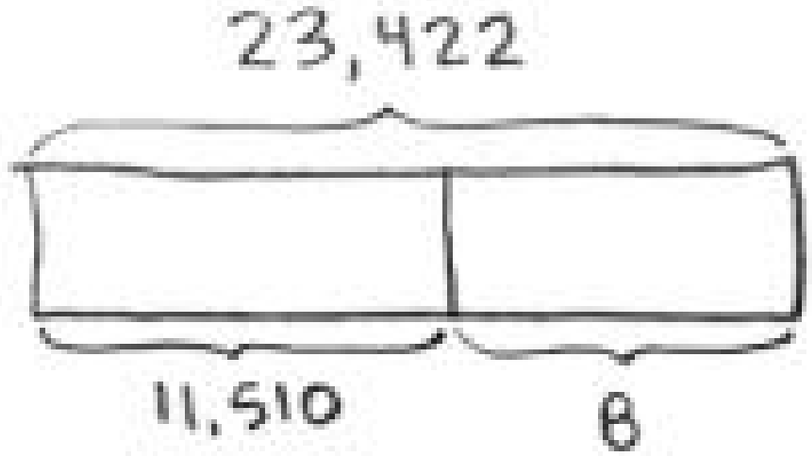


Look across the digits. Are we ready to subtract?

Tell your partner how to make enough hundreds to subtract

Subtraction with Regrouping

$$\begin{array}{r} 23,422 \\ -\ 11,510 \\ \hline \end{array}$$



Tell your partner what must be added to 11,510 to result in the sum of 23,422.

How do we check a subtraction problem?

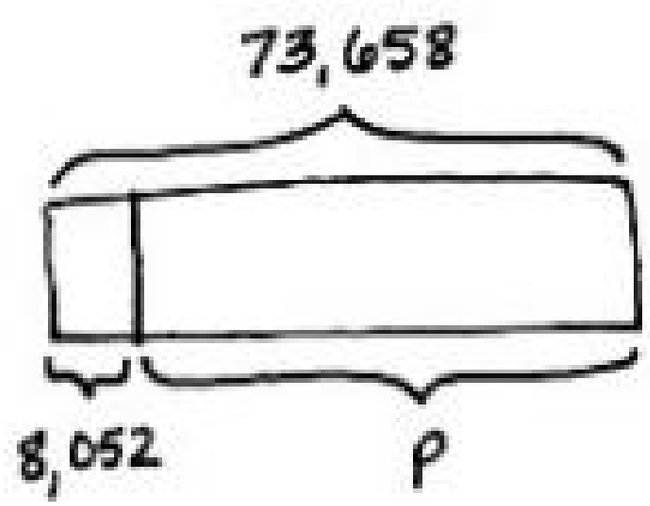
Subtraction Word Problem

The paper mill produced 73,658 boxes of paper. 8,052 boxes have been sold. How many boxes remain?

Draw a tape diagram to represent the boxes of paper produced and sold. I will use the letter P to represent the boxes of paper remaining. Record the subtraction problem. Check to see that you lined up all units.

Subtraction Word Problem

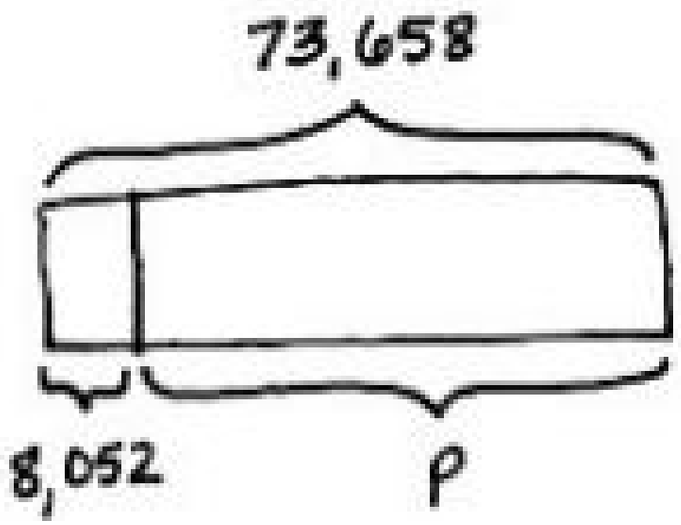
The paper mill produced 73,658 boxes of paper. 8,052 boxes have been sold. How many boxes remain?

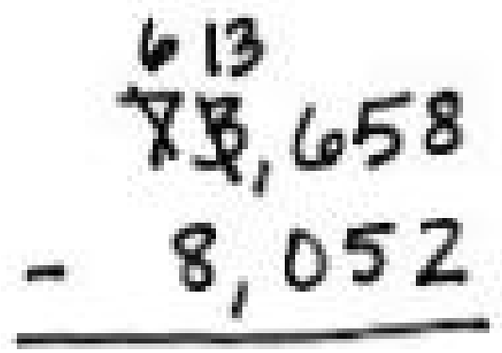


Work with your partner, asking if there are enough units in each column to subtract. Regroup when needed. Then ask, “Am I ready to subtract?” before you begin subtracting. Use the standard algorithm.

Subtraction Word Problem

The paper mill produced 73,658 boxes of paper. 8,052 boxes have been sold. How many boxes remain?





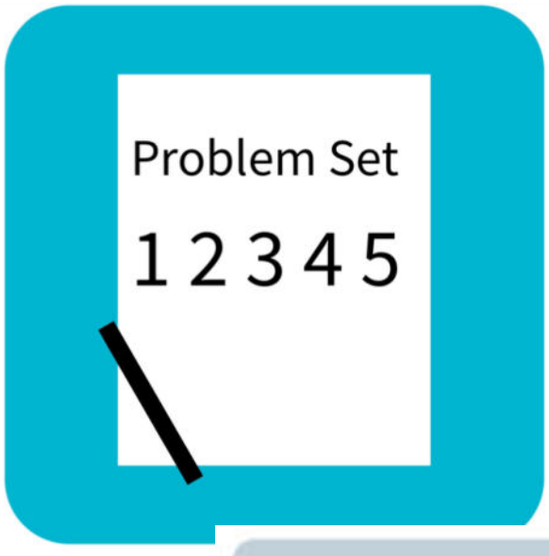
In a statement, tell your partner how many boxes remain.

How will you check to see if your answer is correct?

Subtraction Word Problem

The library has 50,819 books. 4,506 are checked out. How many books remain in the library?

Solve with a partner. Use a tape diagram to represent your subtraction and regrouping. Don’t forget to check your work



Problem Set

Name _____ Date _____

1. Use the standard algorithm to solve the following subtraction problems.

a. 7,525 − 3,502

b. 17,525 − 13,502

c. 6,625 − 4,417

d. 4,625 − 435

e. 6,500 − 470

f. 6,025 − 3,502

g. 23,640 − 14,630

h. 431,925 − 204,815

i. 219,925 − 121,705

Debrief

- Compare your answers for Problem 1(a) and (b). How are your answers the same when the problems are different?
- Why do the days and months matter when solving Problem 3?
- Compare Problem 1(a) and (f). Does having a larger whole in 1(a) give an answer greater than or less than 1(f)? I
- n Problem 4, you used subtraction, but I can say, “I can add 52,411 to 15,614 to result in the sum of 68,025.”
- How can we add and subtract using the same problem?
- Why do we ask, “Are we ready to subtract?”

Exit Ticket

Name _____ Date _____

1. Use the standard algorithm to solve the following subtraction problems.

a.	b.	c.
8,512	18,042	8,072
− 2,501	− 4,122	− 1,561

Draw a tape diagram to represent the following problem. Use numbers to solve. Write your answer as a statement. Check your answer.

2. What number must be added to 1,575 to result in a sum of 8,625?