

Eureka Math

2nd Grade Module 5 Lesson 9

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Directions for customizing presentations are available on the next slide.



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Reflecting your Teaching Style and Learning Needs of Your Students

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- The view now looks like Screen B.
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- Choose MAKE A COPY and rename your presentation.
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- It is now editable & housed in MY DRIVE.



Icons



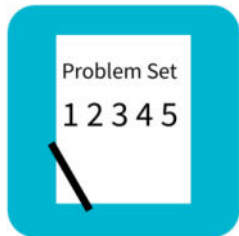
Read, Draw, Write



Learning Target



Personal White Board



Problem Set



Manipulatives Needed



Fluency



Think Pair Share



Whole Class



Individual



Partner



Small Group



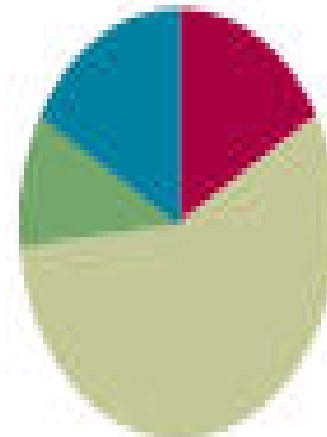
Small Group Time

Lesson 9

Objective: Relate manipulative representations to the addition algorithm.

Suggested Lesson Structure

Application Problem	(6 minutes)
Fluency Practice	(10 minutes)
Concept Development	(34 minutes)
Student Debrief	(10 minutes)
Total Time	(60 minutes)





I can relate manipulative representations to the addition algorithm.

Materials Needed:



Fluency

- (T) White boards

Concept Development:

- (T) Place value disks (9 hundreds, 18 tens, 18 ones),
- (S) personal white board
- (S) Place value disks (9 hundreds, 18 tens, 18 ones),
- (S) Unlabeled hundreds place value chart (Lesson 1 Template 2),



Application problems



The table to the right represents the halftime score at a basketball game.

The red team scored 19 points in the second half.

The yellow team scored 13 points in the second half.

- a. Who won the game?
- b. By how much did that team win?

Team	Score
Red team	63 points
Yellow team	71 points



Application problems



The table to the right represents the halftime score at a basketball game. The red team scored 19 points in the second half. The yellow team scored 13 points in the second half.

- Who won the game?
- By how much did that team win?

a.

Red	63	19
	1st half	2nd half

Yellow	71	13
	1st half	2nd half

The yellow team won the game. They scored 84 while the red team scored 82.

b.

Red	82
Yellow	84

84 - 82 = 2

The yellow team won by 2 points.

Handwritten calculations:

$$63 + 19 = 82$$
$$71 + 13 = 84$$



Making the Next Ten to Add



When I say $9 + 4$, you say $10 + 3$.

Ready? $9 + 4$

$$19 + 4$$

$$9 + 6$$

$$19 + 6$$

$$\begin{array}{r} 9 + 4 = \underline{\quad} \\ \wedge \\ \quad 1 \quad 3 \end{array}$$

$$\begin{array}{r} 9 + 1 = 10 \\ 10 + 3 = \underline{\quad} \end{array}$$



Add Common Units

545

Say the number in unit form.

$$545 + 232 = \underline{\hspace{2cm}}$$

Say the addition sentence, and answer in unit form.

Write the addition sentence on your personal white board



More Tens and Ones

What is 3 tens more than 6 tens?

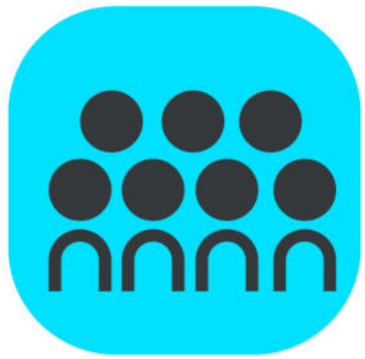
Give the number sentence in unit form.

Give the number sentence in standard form.

What is 4 tens more than 6 tens? Give the answer in tens.

Give the answer in hundreds.

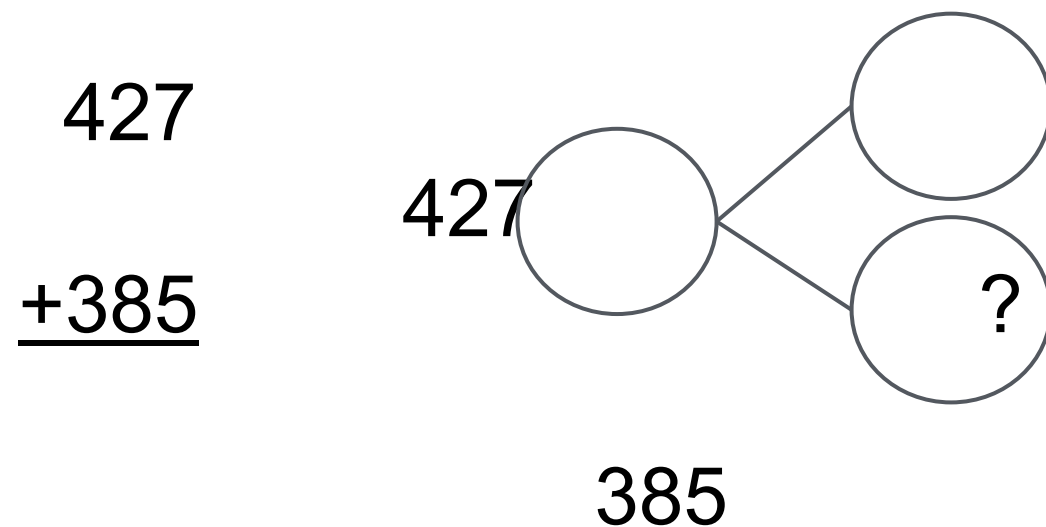
Give the number sentence in standard form.



CONCEPT DEVELOPMENT



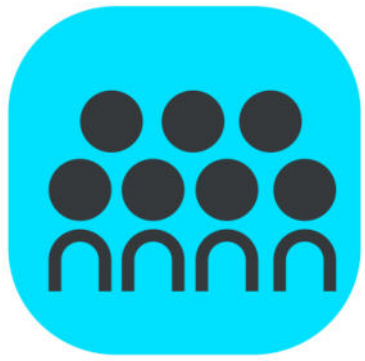
Problem 1: $427 + 385$



Let's solve this mentally. Where do we begin?

Is there another way we can solve?

Use place value language to tell your partner how to show this problem using place value disks.

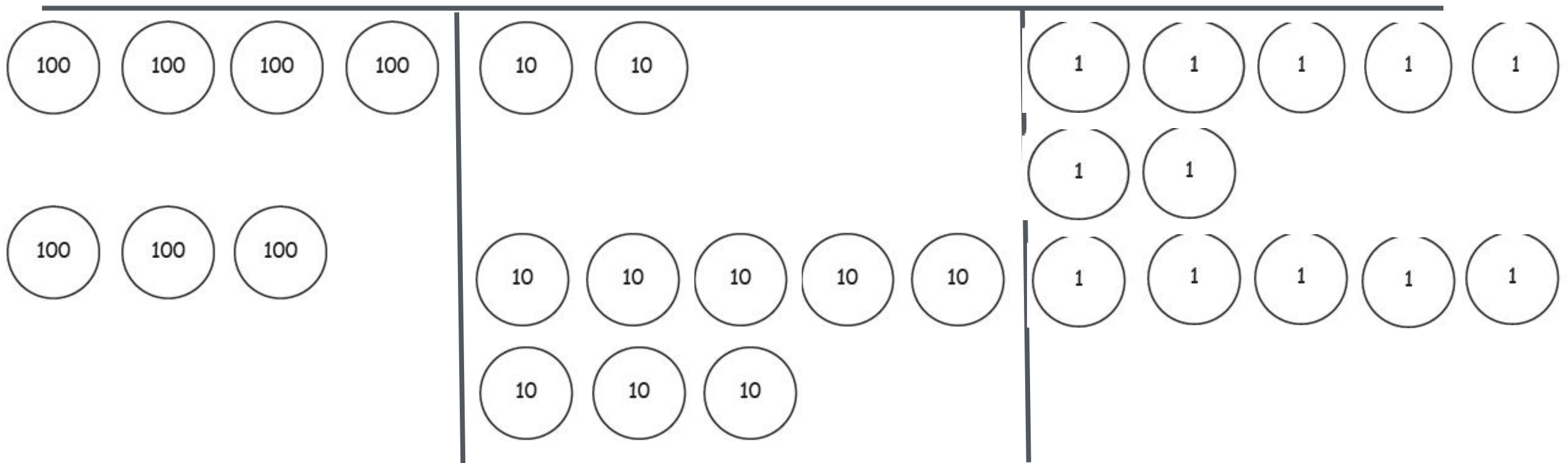


CONCEPT DEVELOPMENT



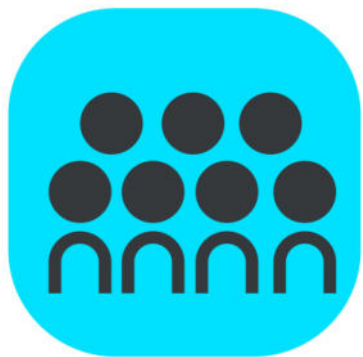
Problem 1: $427 + 385$

Let's all show the problem.



What should we do first to solve?

7 ones + 5 ones?



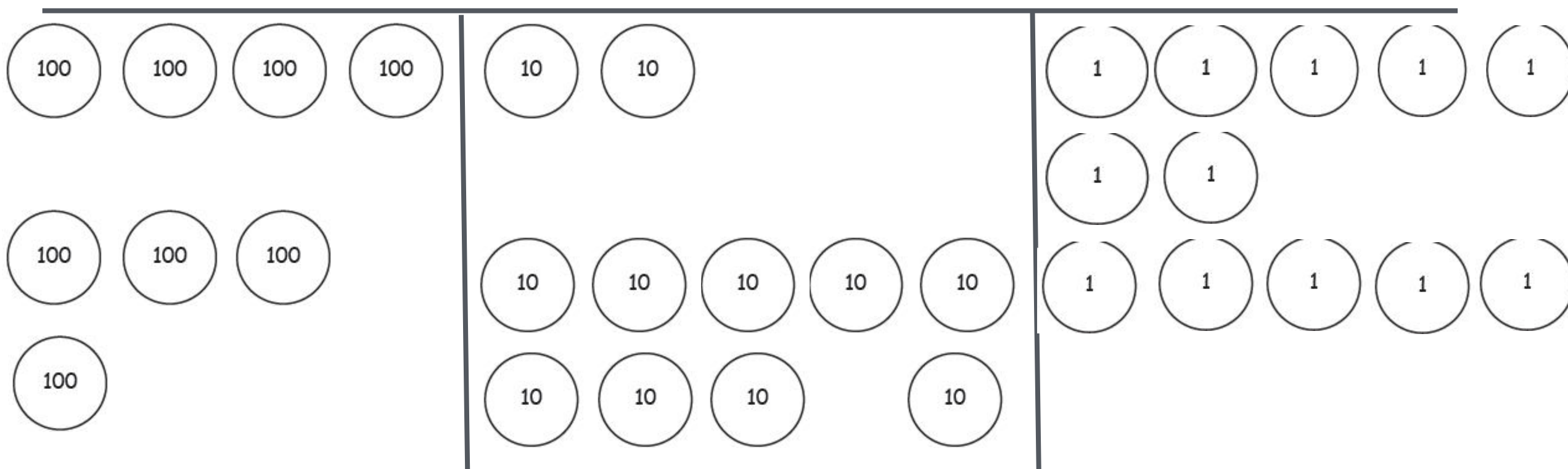
CONCEPT DEVELOPMENT



Problem 1: $427 + 385$

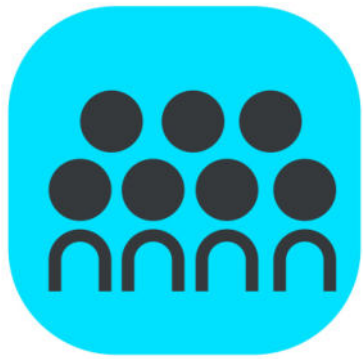
427
 $+385$

What do we do when we have 10 of a unit, like 10 ones?



Let's add 2 tens, 8 tens, and 1 ten.
How many tens altogether?

Let's compose a new hundred!
Remember to show the change
on the vertical form.



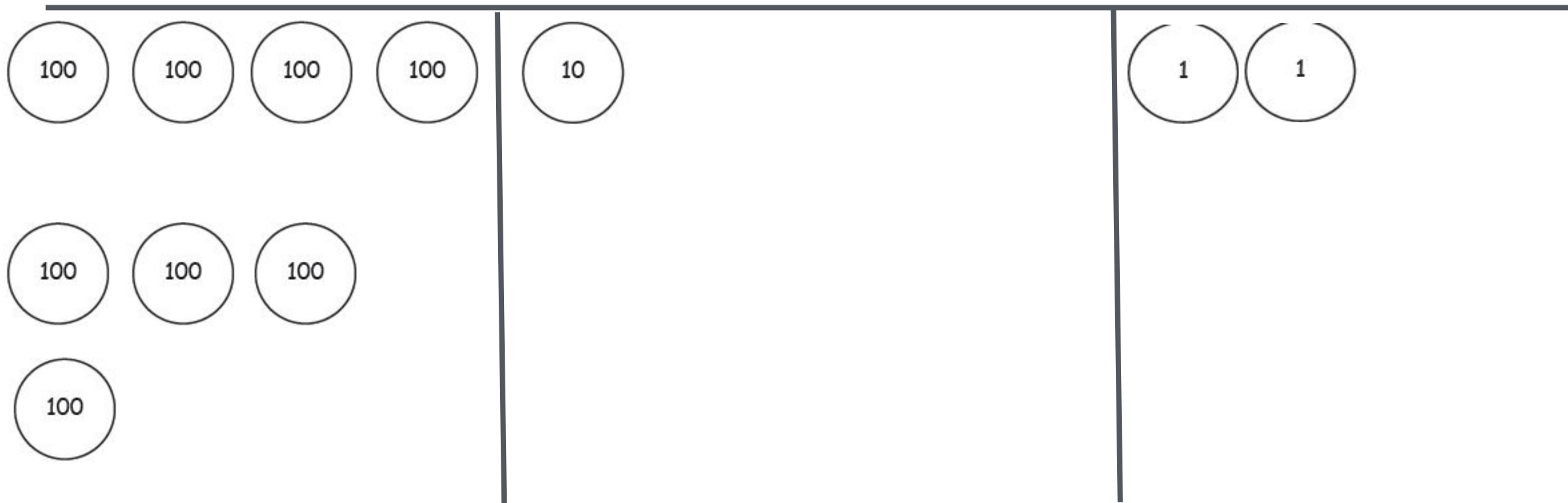
CONCEPT DEVELOPMENT



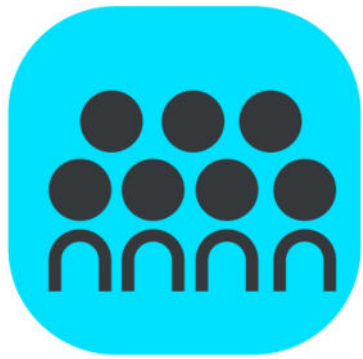
Problem 1: $427 + 385$

$$\begin{array}{r} 427 \\ +385 \\ \hline 11 \\ 12 \end{array}$$

What is 4 hundreds + 3 hundreds + 1 hundred?



If 427 and 385 are the parts, what is the whole?



CONCEPT DEVELOPMENT



Problem 2: $672 + 249$

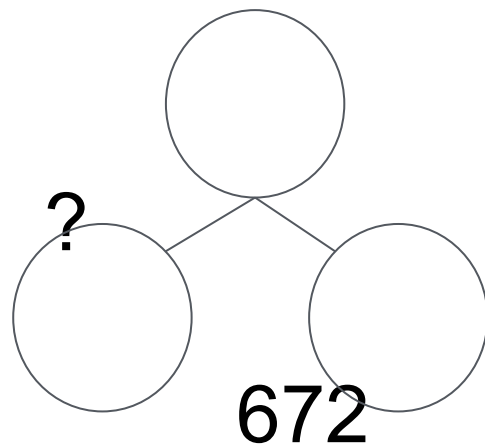
$$\begin{array}{r} 672 \\ + 249 \\ \hline \end{array}$$

Are we finding a part or the whole?

What are the parts?

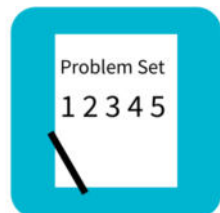
Can we solve this mentally?

That might not be the easiest way for all of us. Let's try that with place value disks, a place value chart, and the vertical form.



Show me and record it vertically!

So, what is $672 + 249$?



Problem Set

A STORY OF UNITS

Lesson 9 Problem Set

2•5

Name _____

Date _____

1. Solve the following problems using place value disks, a place value chart, and vertical form.

a. $417 + 293$	b. $526 + 185$
c. $338 + 273$	d. $625 + 186$
e. $250 + 530$	f. $243 + 537$



Debrief

Did you solve any problems on the first page mentally or with a simplifying strategy? Which ones? Explain your thinking.

Explain to your partner how you used manipulatives to set up Problem 1(a). How did you change your place value disks to show Problem 1(b)? What actions did you take to solve?

For Problem 1(c), how did your work with the place value disks match the vertical form? How did you show new groups below?



Debrief

Explain to your partner how you solved Problem 1(e). Did you need to compose a ten or hundred for Problem 1(f)? Why not? Why was the total the same for both problems?

In Problem 2, which problems were you able to solve mentally? Did you use manipulatives to solve any of these problems? Why or why not?

Use place value language and explain to your partner how you solved Problem 2(a–d) mentally. Or explain how your place value disks and vertical form changed as you worked through the problems.



Exit Ticket

A STORY OF UNITS

Lesson 9 Exit Ticket

2•5

Name _____

Date _____

Solve the following problems using your place value chart, place value disks, and vertical form. Bundle a ten or hundred, when necessary.

1. $375 + 197$

2. $184 + 338$