Eureka Math

2nd Grade Module 4 Lesson 17

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Icons



















Manipulatives Needed







Lesson 17

Objective: Use mental strategies to relate compositions of 10 tens as 1 hundred to 10 ones as 1 ten.

Suggested Lesson Structure

Fluency Practice
Concept Development
Application Problem
Student Debrief

Total Time

(10 minutes) (32 minutes) (8 minutes) (10 minutes) (60 minutes)





I can use mental strategies to relate compositions of 10 tens as 1 hundred to 10 ones as 1 ten.

Materials Needed:



Concept Development:



Compensation



42 + 19 = ____

Let's use a mental math strategy to add. How much more does 19 need to make the next ten?

Where can 19 get 1 more from?

Take 1 from 42 and give it to 19. Say the simplified number sentence, with the answer.

37 + 19. Say the simplified number sentence, with the answer.



Rename the Units



- 10 ones = _____ ten ____ ones
- 20 ones = 1 ten _____ ones
- 24 ones = 1 ten _____ ones
- 30 ones = 2 tens ____ ones



CONCEPT DEVELOPMENT



Show me your magic counting sticks.

Give them a value of one. Count with me.

How many ones in 1 ten?

10 ones equals 1 ten.



Show me your magic counting sticks again.

This time give them a value of ten. Count with me.

How many tens in 1hundred? 10 tens equals 1 hundred.







Read these sentences aloud, filling in the blanks.

- 1 one + ____ = 10 ones = 1 ten
- 1 ten + ____ = 10 tens = 1 hundred

Talk with your partner. How are these statements the same and different?

How is making a ten similar to making a hundred?





Read these sentences aloud, filling in the blanks.

6 ones + 4 ones?

6 tens + 4 tens is...?

60 + 40 is...?





Now, let's make tens and hundreds



Talk with your partner. What numbers go into the blanks?

Find the total in each problem.

Explain the relationship between the first problem and the two last problems.



Problem Set

A STORY OF UNITS		Lesson 17 Problem Set 2	
Jame		Date	
 Solve mentally. a. 2 ones + 	= 1 ten	2 +	= 10
2 tens +	= 1 hundred	20 +	= 100
b. 1 ten =	+ 6 ones	10 =	+ 6
1 hundred =	+ 6 tens	100 =	+ 60





Erasers come in boxes of 10. Victor has 14 boxes. Gabby has 5 boxes.

- a. How many erasers does Victor have?
- b. How many erasers does Gabby have?
- c. If Gabby gets another box, how many erasers do

they have in all?



Application problems



Erasers come in boxes of 10. Victor has 14 boxes. Gabby has 5 boxes.

a. How many erasers does Victor have?



Application problems



Erasers come in boxes of 10. Victor has 14 boxes. Gabby has 5 boxes.

b. How many erasers does Gabby have?

(1) (1) (1) 5 tens = 50 (15) [10.] Glabby has 50 erasers.



Application problems



Erasers come in boxes of 10. Victor has 14 boxes. Gabby has 5 boxes.

c. If Gabby gets another box, how many erasers do

they have in all?





What was the total for each problem in 1(c)? What pattern do you notice? What is the relationship between the first problem and the other two problems?

For Problem 1(d), prove to your partner that 16 tens is the same as 160. Use what you know about the place value chart to support your reasoning.

How are the problems in 2(a) the same and different? What is the relationship between them?



For Problems 3(a) and (b), why do we add 6 ones first? How does adding 6 ones and then 7 tens change the totals in each problem?

Ones, tens, and hundreds are part of a base ten system.

Why do you think it is called base ten? What important connection did we make today between ones, tens, and hundreds?



Lesson 17 Exit Ticket 2•4 A STORY OF UNITS Name_____ Date _____ 1. Solve mentally. a. 4 ones + _____ = 1 ten 4 + = 10 4 tens + _____ = 1 hundred 40 + ____ = 100 b. 2 ones + 8 ones = _____ ten 2 + 8 = _____ 2 tens + 18 tens = _____ hundreds 20 + 180 = _____