Eureka Math

1st Grade Module 3 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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- ➤ Choose MAKE A COPY and rename your presentation.
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Icons



















Manipulatives Needed







Lesson 9

Objective: Answer compare with difference unknown problems about lengths of two different objects measured in centimeters.

Suggested Lesson Structure

Fluency Practice
 Application Problem
 Concept Development
 Student Debrief
 Total Time

(18 minutes)
(5 minutes)
(27 minutes)
(10 minutes)
(60 minutes)



Materials Needed

Teacher

• 2 different colors of centimeter cubes (e.g., blue and yellow), dry erase marker, jumbo craft stick, crayon, glue stick, small paper clip, unsharpened pencil, new colored pencil, chart with measuring rules (Lesson 7)

Student

 1 die per pair, bag with 20 blue and 20 yellow centimeter cubes, bag with classroom materials (Lesson 4), new colored pencil



I can measure objects in centimeters.

I can solve *compare with difference unknown* problems comparing lengths.





You will be working with a partner.

Start at 0.

Partners take turns rolling a die and then saying a number sentence by adding the number rolled to the total.

Keep rolling and saying number sentences until you get to EXACTLY 20.

Stand when you reach 20.



Sprint: Addition Within 20

Let's do a Sprint!

A STORY OF UNITS			Lesson 7 Sprint 1.	
A Name	8		Number Correct:	
*Writ	te the missing number.			
1.	17 + 1 = 🗆	16.	11 + 9 = 🗆	
2.	15 + 1 = 🗆	17.	10 + 9 = 🗆	
3.	18 + 1 = 🗆	18.	9 + 9 = 🗆	
4.	15 + 2 = 🗆	19.	7 + 9 = 🗆	
5.	17 + 2 = 🗆	20.	8 + 8 = 🗆	
6.	18 + 2 = 🗆	21.	7 + 8 = 🗆	
7.	15 + 3 = 🗆	22.	8 + 5 = 🗆	
8.	5 + 13 = 🗆	23.	11 + 8 = 🗆	
9.	15 + 2 = 🗆	24.	12 + 🗆 = 17	
10.	5 + 12 = 🗆	25.	14 + 🗆 = 17	
11.	12 + 4 = 🗆	26.	8 + 🗆 = 17	
12.	13 + 4 = 🗆	27.	□+7=16	
13.	3 + 14 = 🗆	28.	□+7=15	
14.	17 + 2 = 🗆	29.	9 + 5 = 10 + 🗆	
15	12 + 7 = 🗆	30	7+8-□+9	



Sprint: Addition Within 20

A STORY OF UNITS

4 + 14 = 🗆

16 + 3 = 🗆

13 + 6 = 🗆

13.

14.

15.

Let's do a Sprint!

B Name		Number Corr Date	rect:
Write the missing number.			
1. 14 + 1 =	16.	11 + 9 = 🗆	
2. 16 + 1 = 🗆	17.	10 + 9 = 🗆	
3. 17 + 1 = 	18.	8 + 9 = 🗆	
4. 11 + 2 = 🗆	19.	9 + 9 = 🗆	
^{5.} 15 + 2 = □	20.	9 + 8 = 🗆	
6. 17 + 2 = 	21.	8 + 8 = 🗆	
7. 15 + 4 = □	22.	8 + 5 = 🗆	
^{8.} 4 + 15 = 🗆	23.	11 + 7 = 🗆	
9. 15 + 3 = 🗆	24.	12 + 🗆 = 18	
10. 5 + 13 =	25.	14 + 🗆 = 18	
11. 13 + 4 = □	26.	8 + 🗆 = 18	
12. 14 + 4 = 	27.	□ + 5 = 14	

28.

 $\Box + 6 = 15$

29. 9 + 6 = 10 + 🗆

30. **6 + 7 = □ + 9**

Lesson 7 Sprint



Number Sentence Swap

I'm going to say a subtraction sentence aloud.

I will say "the mystery number" instead of one of the numbers.





5 - 3 = the mystery number



5 - 3 = the mystery number

I'll call on a student to say an addition sentence with the same numbers.



5 - 3 = the mystery number

I'll call on a student to say an addition sentence with the same numbers.

3 + the mystery number = 5



5 - 3 = the mystery number

I'll call on a student to say an addition sentence with the same numbers.

3 + the mystery number = 5

When I give the signal, say the mystery number.



5 - 3 = the mystery number

I'll call on a student to say an addition sentence with the same numbers.

3 + the mystery number = 5

When I give the signal, say the mystery number.

Yes, 2 is the mystery number!

RDW Application Problem

Corey buys a super-cool, extra-long crayon that is 14 centimeters long.

His regular crayon is 9 centimeters long.

Use centimeter cubes to find out how much longer Corey's new crayon is than his regular crayon.

Write a statement to answer the question. Write a number sentence to show what you did.

A friend and I were playing a game.



Whoever found the longer object on our desks won, but the object could not be longer than a new pencil.

For each *extra centimeter* in length, the person with the longer object got a point.

My friend found a craft stick, and I found a dry erase marker, just like the ones on our chart.

My dry erase marker measured 12 centimeters, and my friend's craft stick measured 15 centimeters.

My friend said that they got 15 points, but I don't think that's right.

Let's lay the centimeter cubes down and compare them to see how many points my friend should have gotten in our game.



I have 12 centimeter cubes here in my hand.

The dry erase marker is 12 centimeters long.

Will I have enough cubes to measure my dry erase marker?



I have 12 centimeter cubes here in my hand.

The dry erase marker is 12 centimeters long.

Will I have enough cubes to measure my dry erase marker?

Will these same 12 cubes be enough to measure the craft stick?

My friend said they should get 15 points because it took 15 more centimeter cubes to measure the craft stick than the marker!

My friend said they should get 15 points because it took 15 more centimeter cubes to measure the craft stick than the marker!

Look at the marker and the centimeter cubes we laid down. Is my friend right?

My friend said they should get 15 points because it took 15 more centimeter cubes to measure the craft stick than the marker!

Look at the marker and the centimeter cubes we laid down. Is my friend right?

Did they need 15 more cubes along with the 12 cubes I needed?

My friend said they should get 15 points because it took 15 more centimeter cubes to measure the craft stick than the marker!

Look at the marker and the centimeter cubes we laid down. Is my friend right?

Did they need 15 more cubes along with the 12 cubes I needed?

Talk with a partner. How many more cubes did the teacher next door need compared to the number of cubes I used?



Now, let's try my friend's idea.



Now, let's try my friend's idea.

Wow, this is too long! It's much longer than the difference between what he already has and what he needs.

What should I do?



Now, let's try my friend's idea.

Wow, this is too long! It's much longer than the difference between what he already has and what he needs.

What should I do?

If I take away extra cubes until they line up with the stick, how many more did I need?



How much longer is the teacher's craft stick compared to my marker?

How much shorter is my marker compared to the teacher's craft stick?



How much longer is the teacher's craft stick compared to my marker?

How much shorter is my marker compared to the teacher's craft stick?

How many points should my friend have earned for that round?



How much longer is the teacher's craft stick compared to my marker?

How much shorter is my marker compared to the teacher's craft stick?

How many points should my friend have earned for that round?

Yes, 3 points. My friend tried to get 15 points and that's not fair!



You are now going to use your centimeter cubes to measure some items.



You are now going to use your centimeter cubes to measure some items.

Measure a new colored pencil and an unsharpened pencil, like the game my friend and I played.

You are now going to use your centimeter cubes to measure some items.

Measure a new colored pencil and an unsharpened pencil, like the game my friend and I played.

Measure and compare the lengths of a crayon and a glue stick to see which item is shorter and by how much.



Kelly is knitting a scarf for her doll. It needs to be 13 centimeters long.

She has already knitted 9 centimeters.

How many more centimeters need to be knitted?



Problem Set



A STORY OF UNITS	Lesson 9 Problem Set	1•3
Name	Date	

1. Look at the picture below. How much longer is Guitar A than Guitar B?



2. Measure each object with centimeter cubes.



The blue pen is ______.



The yellow pen is ______.



Problem Set

A STORY OF UNITS

Lesson 9 Problem Set 1.3

- How much longer is the yellow pen than the blue pen?
 The yellow pen is _____ centimeters longer than the blue pen.
- 4. How much shorter is the blue pen than the yellow pen?
 - The blue pen is _____ centimeters shorter than the yellow pen.

Use your centimeter cubes to model each problem. Then, solve by drawing a picture of your model and writing a number sentence and a statement.

5. Austin wants to make a train that is 13 centimeter cubes long. If his train is already 9 centimeter cubes long, how many more cubes does he need?

6. Kea's boat is 12 centimeters long, and Megan's boat is 8 centimeters long. How much shorter is Megan's boat than Kea's boat?



Problem Set



A STORY OF UNITS

Lesson 9 Problem Set 103

7. Kim cuts a piece of ribbon for her mom that is 14 centimeters long. Her mom says the ribbon is 8 centimeters too long. How long should the ribbon be?

8. The tail of Lee's dog is 15 centimeters long. If the tail of Kit's dog is 9 centimeters long, how much longer is the tail of Lee's dog than the tail of Kit's dog?

Debrief



Check your work by comparing answers with your partner.







Look at Problems 3 and 4.

What do you notice about the answers?

Explain to your partner why this is so.





Look at Problem 8.

Can you think of a number sentence that can help you check your answer?

What strategy helped you when you tried to find the difference between two objects?

Debrief



Look at today's Application Problem.

How does it apply to today's lesson?

Debrief



Turn to your partner and share what you learned in today's lesson.

What did you get really good at today?



Exit Ticket



A STORY OF UNITS	Lesson 9 Exit Ticket	
Name	Date	

Use your centimeter cubes to model the problem. Then, draw a picture of your model.

Mona's hair grew 7 centimeters. Claire's hair grew 15 centimeters. How much less did Mona's hair grow than Claire's hair?