Eureka Math

2nd Grade
Module 7
Lesson 22

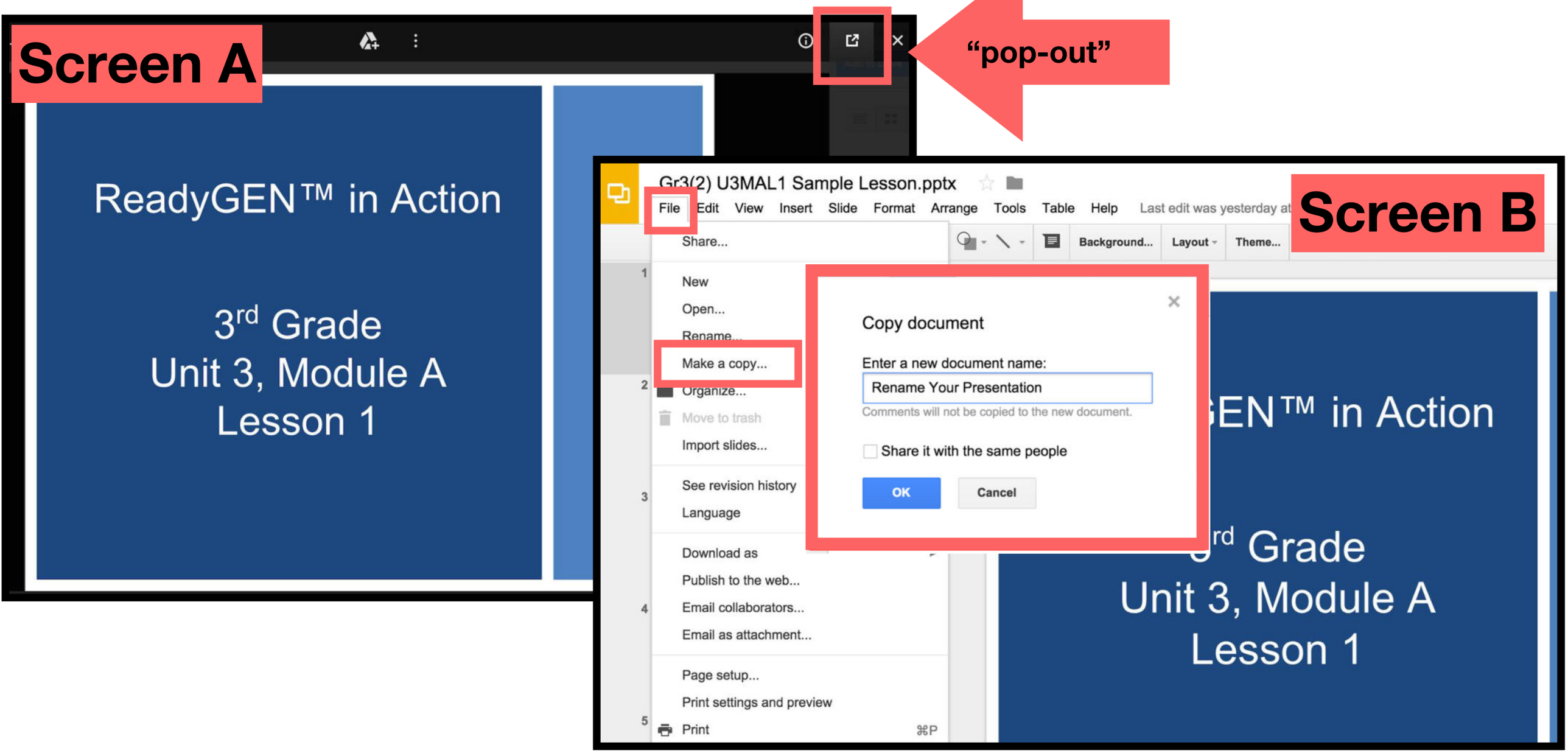
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

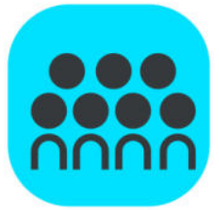
Personal White Board

Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

Small Group Time

Materials Needed:

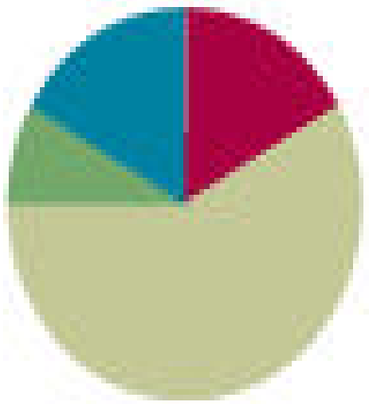
Materials:
Fluency - (S) Core Fluency Differentiated Practice Sets
(S) Number lines A and B (Template), personal white board,1 new pencil

Lesson 22

Objective: Represent two-digit sums and differences involving length by using the ruler as a number line.

Suggested Lesson Structure

Fluency Practice	(10 minutes)
Application Problem	(5 minutes)
Concept Development	(35 minutes)
Student Debrief	(10 minutes)
Total Time	(60 minutes)



I can represent two-digit sums and differences involving length by using the ruler as a number line.

Compensation

420 + 190 =____

Let's use mental math to add these numbers.

How much more does 190 need to make the next hundred?

Where can 190 get 10 more?

Take 10 from 420 and give it to the 190. Say the new number sentence

Sprint

A STORY OF UNITS | Lesson 1 Core Fluency Practice Set A | 2•6

A STORY OF UNITS | Lesson 1 Core Fluency Practice Set B | 2•6

A STORY OF UNITS | Lesson 1 Core Fluency Practice Set C | 2•6

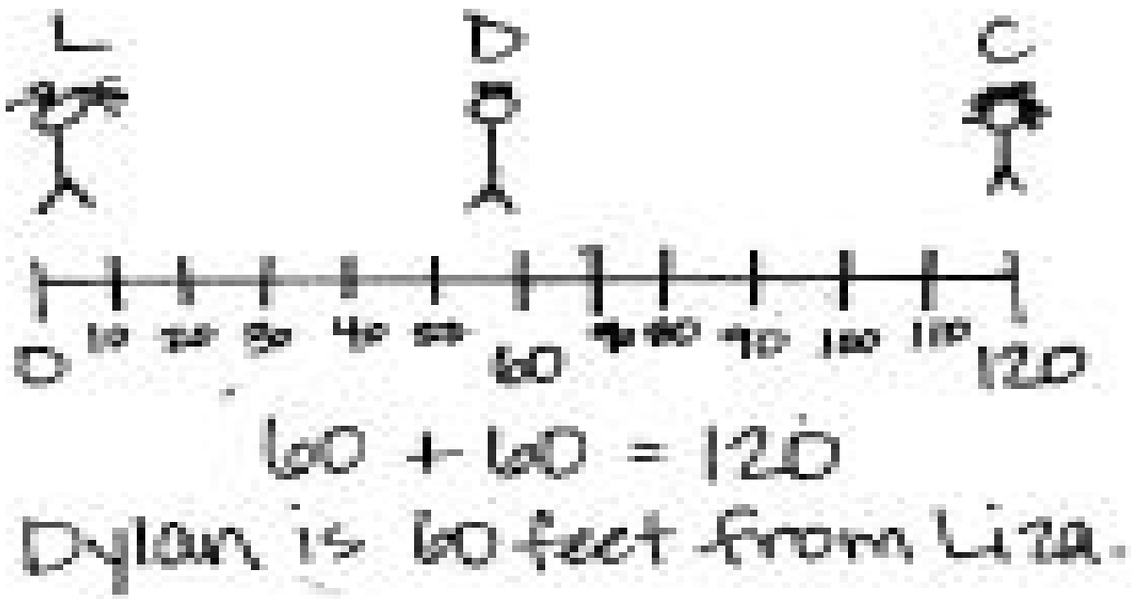
A STORY OF UNITS | Lesson 1 Core Fluency Practice Set D | 2•6

Name _____ Date _____

1.	19 – 9 =	21.	16 – 7 =

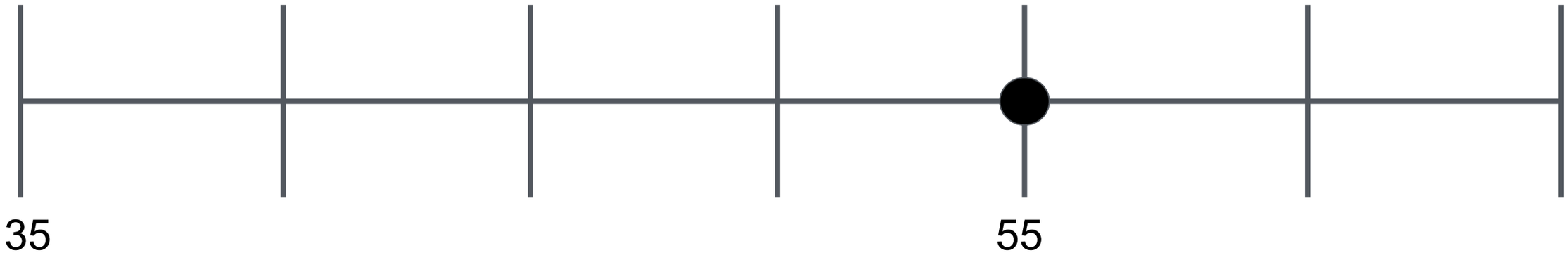
Application Problem

Liza, Cecilia, and Dylan are playing soccer. Liza and Cecilia are 120 feet apart. Dylan is in between them. If Dylan is standing the same distance from both girls, how many feet is Dylan from Liza?



Concept Development

Problem 1: Relate more length on the number line to addition.



How can we use the number line to show 20 yards more than 35 yards? Turn and talk.

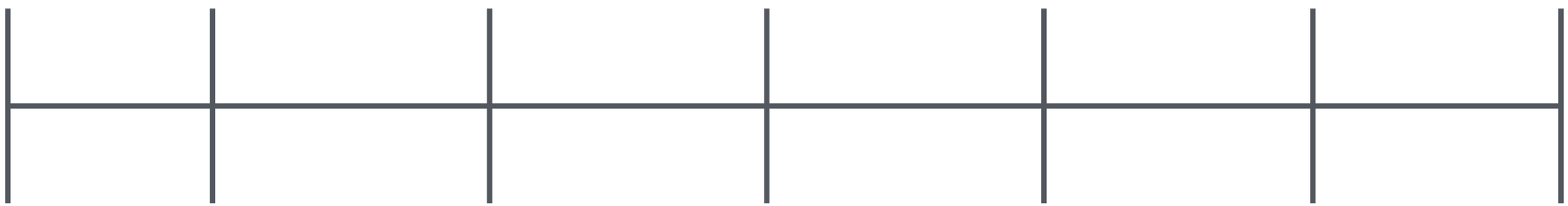
Label the endpoint and show us how you slide 20 more yards when each hash mark is a length of 5 yards.

Let’s put a dot where we ended to show 20 more than 35 yards.
What do we need to do to figure out the value of that point?

Write a number sentence that matches 20 more than 35 on the number line.
Label your number line with your answer.

Concept Development

Part 2: Relate less length on the number line to subtraction



How can we use the number line to show 15 feet less than 55 feet? Turn and talk.

We just did addition moving to the right. Now let's do the opposite and move to the left to show subtraction.

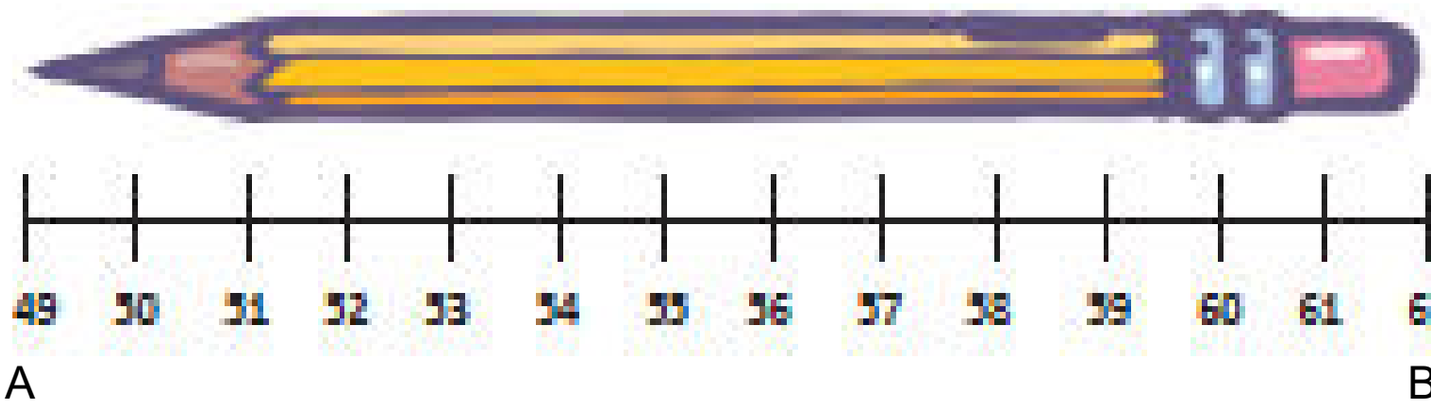
Work on your whiteboard to show 15 less than 55?

Label the number line, write a subtraction sentence on your board that matches 15 less than 55 on the number line.

Concept Development

Part 3: Relate the length of an object on the Number line to subtraction.

Look at number line B. This was part of a whole meter strip, but it got cut at 49 and 66. These are our endpoints.



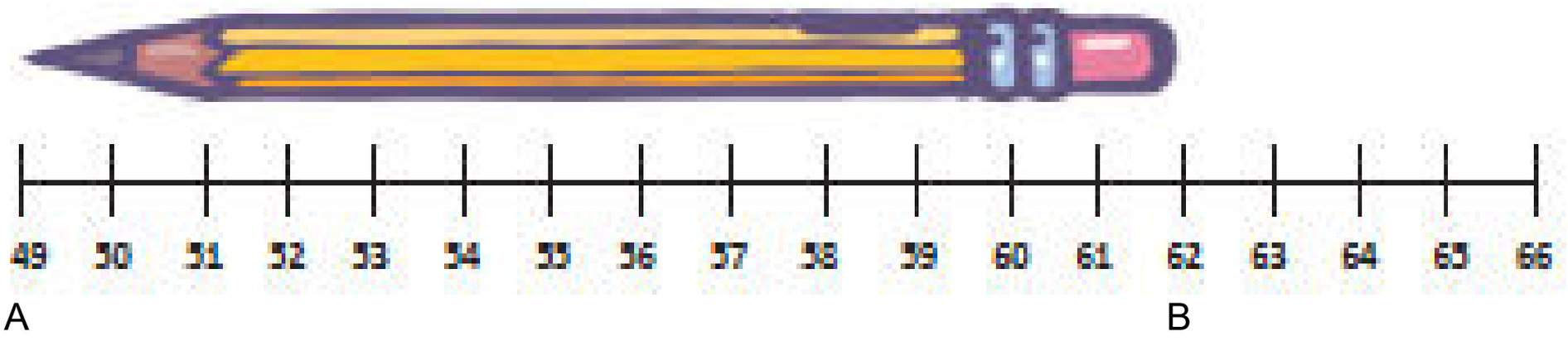
Place the end of your pencil at the endpoint of the number line where it says 49. How can we figure out the length of the pencil?

Let’s mark the endpoints of our pencil on the number line. Mark the point on the left A and the point on the right B.

Concept Development

Part 3: Relate the length of an object on the Number line to subtraction.

The length from A to B is the same as the length as the ….? Pencil

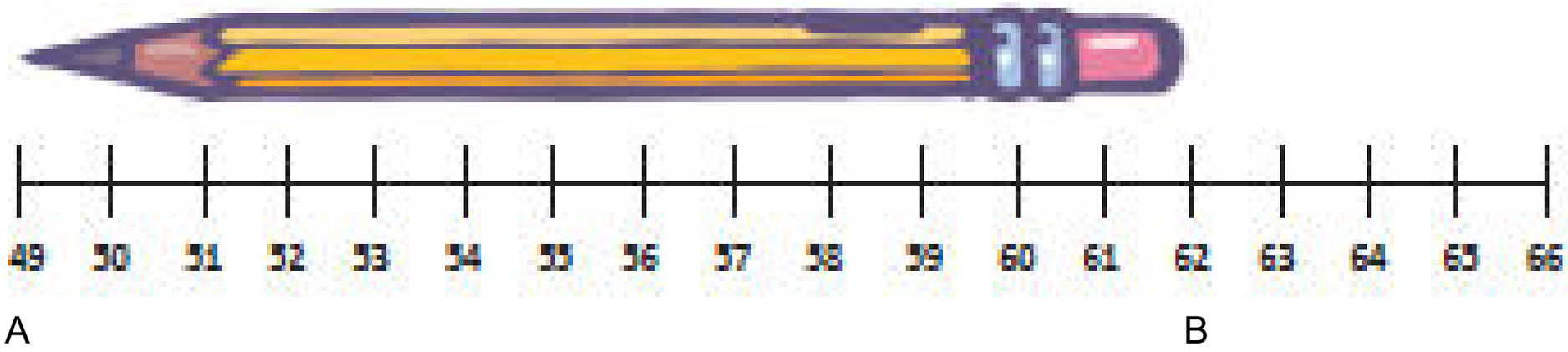


How can we find the length of the pencil?
On your white, under the number line, write and solve a subtraction sentence that will tell us the length of your pencil. Don't solve it yet.

Will the pencil length change if I move the pencil on the number line so that I can write a subtraction problem that is simpler to solve?

Concept Development

Part 3: Relate the length of an object on the Number line to subtraction.



62 - 49 = ____ 63 - 50 = ____

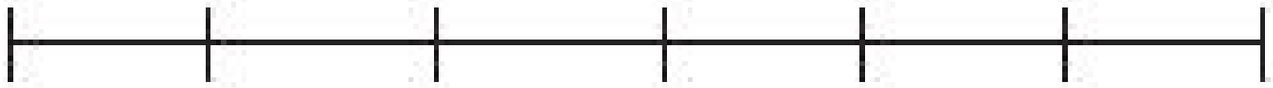
Move your pencil and write the new number sentence. Solve both equations. Count the length units to check and see if the length of the pencil is the same as the answer to your equations.

True or False: 62 - 49 = 63 - 50
Talk to your partner.

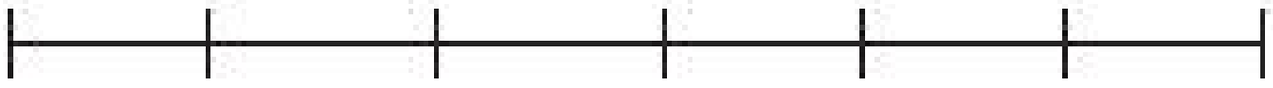
Name _____ Date _____

1. Each unit length on both number lines is 10 centimeters.
(Note: Number lines are not drawn to scale.)

a. Show 30 centimeters more than 66 centimeters on the number line.



b. Show 20 centimeters more than 76 centimeters on the number line.



c. Write an addition sentence to match each number line.

Debrief

Look at Problem 1 on your Problem Set. Using your finger and skip-counting, show your partner how you represented 30 more than 65 centimeters on the number line.

Talk to your partner about how Problem 3 on your Problem Set can help you solve Problem 4.

Debrief

Sometimes we count the units on a ruler or number line to figure out the length of an object. What are some things we have to think about when we use this strategy?

If you knew the endpoints of an object, could you figure out the length of the object without using a number line or ruler? How?

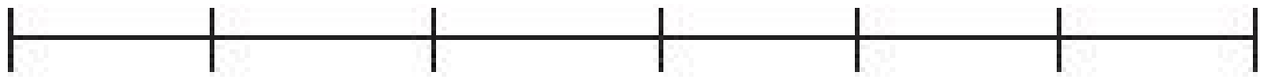
Exit Ticket

Name _____ Date _____

Each unit length on both number lines is 20 centimeters.
(Note: Number lines are not drawn to scale.)

1. Show 20 centimeters more than 25 centimeters on the number line.

2. Show 40 centimeters less than 46 centimeters on the number line.



3. Write an addition or a subtraction sentence to match each number line.