

North Penn School District  
Elementary Math Parent Letter

Grade 2

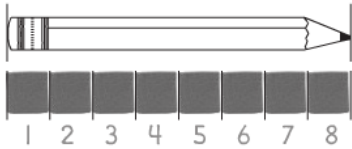
Unit 6 – Chapter 9: Length in Metric Units

Examples for each lesson

Lesson 9.1

**Measure with a Centimeter Model**

Measure and estimate lengths in standard units.



Place unit cubes on the squares.  
How many cubes long is the pencil?  
The pencil is 8 cubes long.  
Each unit cube is about 1 centimeter long.  
So, the pencil is about 8 centimeters long.


More information on this strategy is available on Animated Math Model #49.


Lesson 9.2

**Estimate Lengths in Centimeters**

Measure and estimate lengths in standard units.

The ribbon is about 8 centimeters long. How can you find the most reasonable estimate for the length of the string?

ribbon 

string 

1 centimeter  
6 centimeters  
10 centimeters

Think: 1 centimeter is not reasonable because the string is much longer than 1 cube.

Think: 10 centimeters is not reasonable because the string is shorter than the ribbon.

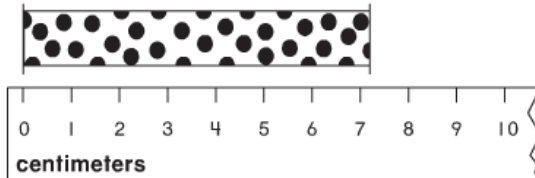
### Lesson 9.3

## Measure with a Centimeter Ruler

Measure and estimate lengths in standard units.

Line up the left end of the ribbon with the zero mark on the ruler.

Which centimeter mark is closest to the other end of the ribbon?



The ribbon is about 7 centimeters long.

More information on this strategy is available on Animated Math Model #50.

### Lesson 9.4

## Add and Subtract Lengths

CC.2.MD.5

Relate addition and subtraction to length.

Christy has a ribbon that is 12 centimeters long. Erin has a ribbon that is 9 centimeters long. How many centimeters of ribbon do they have altogether?

### Unlock the Problem

What do I need to find?

how much ribbon they have

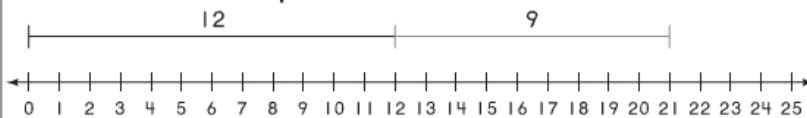
altogether

What information do I need to use?

Christy has 12 centimeters of ribbon.

Erin has 9 centimeters of ribbon.

Show how to solve the problem.



$$\underline{12 + 9 = \blacksquare}$$

They have 21 centimeters of ribbon altogether.

## Lesson 9.5

### Centimeters and Meters

Measure and estimate lengths in standard units.

You can measure longer lengths in meters.

1 meter is the same as 100 centimeters.

The real board is about 100 centimeters tall.  
So, the real board is about 1 meter tall.



More information on this strategy is available on Animated Math Model #51.

## Lesson 9.6

### Estimate Lengths in Meters

Measure and estimate lengths in standard units.

Estimate the length of the chalk tray.



The chalk tray is about the same length as 2 meter sticks.

So, the chalk tray is about 2 meters long.


Lesson 9.7

# Measure and Compare Lengths

Measure and estimate lengths in standard units.


Which object is longer? How much longer?

1. Measure the leaf.



The leaf is 9 centimeters.

2. Measure the stick.



The stick is 5 centimeters.

3. Complete the number sentence to find the difference.

$$\begin{array}{r} 9 \\ \hline \end{array} - \begin{array}{r} 5 \\ \hline \end{array} = \begin{array}{r} 4 \\ \hline \end{array}$$

centimeters      centimeters      centimeters

The leaf is 4 centimeters longer than the stick.

## Vocabulary

**Centimeter** – a unit of length in the metric system of measurement

**Meter** – a unit of length or distance in the metric system of measurement;

$$1 \text{ meter} = 100 \text{ centimeters}$$