



Eureka Math Tips for Parents

Grade 2 • Module 2

Addition and Subtraction of Length Units

In this module, we will be exploring the ruler, estimating and measuring lengths using various tools and units, and finally, relating addition and subtraction to length.

Grade Level Standards

2.MD.1, 2.MD.2, 2.MD.3, 2.MD.4, 2.MD.5, 2.MD.6

Student Report Card

Understands measurements of data, length, time and money.

Key Vocabulary



- **Endpoint:** where something ends, where measurement begins
- **Overlap:** extend over, or cover partly
- **Centimeter (cm):** unit of length measure
- **Hash mark:** the marks on a ruler or other measurement tools
- **Number line:** a line marked at evenly spaced intervals
- **Estimate:** an approximation of the value of a quantity or number
- **Benchmark:** round numbers like multiples of ten.

How you can help at home:



- Estimate the lengths of various objects around the house, such as a table, a book, a toothbrush, etc. Next, Measure the same objects using a ruler with inches and centimeters to compare the estimate to the actual length.
- Measure the four sides of a square or rectangular table using inches, and then add the four sides together to find out how long the table is around.
- Measure two different book lengths using centimeters. Compare the two lengths and determine how much longer one book is than the other.
- Continue to review adding and subtracting up to 20
- Practice measuring lengths longer than a ruler by marking and measuring from a mark

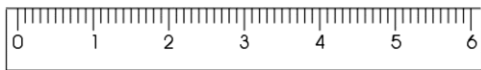
Models and Representations

Students will first measure objects using centimeter cubes. Students learn that there must not be any gaps or overlaps between the units.



Students will then create their own centimeter ruler and use it to measure lengths, connecting the idea of measurement to a ruler.

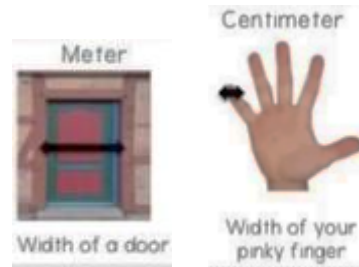
Centimeter Ruler



Students use centimeter rulers, meter sticks, and meter tapes to measure various objects.



Students learn benchmark lengths, such as the width of a door being one meter, or the width of a finger being a centimeter. Learning these mental benchmarks for measurement helps develop estimation skills.



Students progress from concrete to abstract by creating tape diagrams to represent and compare length.

The red colored pencil is 17 centimeters long. The green colored pencil is 9 centimeters shorter than the red colored pencil. What is the total length of both pencils?

Step 1

R 17cm

G ?

$$17 - 9 = 8 \text{ cm}$$

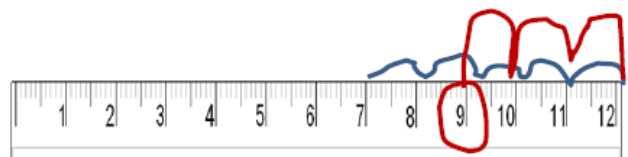
Step 2

R 17cm
G 8cm } ?

$$17 + 8 = 25$$

The total length of both pencils is 25 cm.

The module ends as students relate addition and subtraction to length. Students use a ruler to help them solve word problems.



A frog hopped 5cm forward and 3cm back then rested on his lily pad. If the frog started at 7 on the ruler, where did the frog stop to rest? Show your work on the ruler.