## **LENGTH**

### **A DEFINITION**

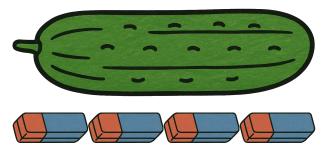
Definition Length \_

**Length** is the distance from one point to another.

#### Method Measure Length with Objects -

To measure the length of an object, use small things like blocks or erasers. Line them up next to the object and count how many fit along its length.

Ex:



The cucumber measures 4 erasers long.

#### **B LENGTH UNITS**

**Discover:** We can measure length using different units like blocks or erasers. But these units are not the same for everyone. Your friend might have a longer eraser than yours, making it hard to compare. To solve this, mathematicians created a universal unit called the meter, so everyone can measure and compare lengths the same way.

### Definition Units of Length \_

• Millimeter (mm): A very small unit of length, about the thickness of a coin.



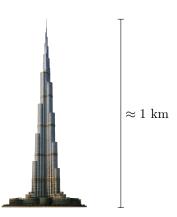
• Centimeter (cm): A small unit of length, about the width of your finger.



• Meter (m): A longer unit of length, about the height of a 6-year-old girl.



• Kilometer (km): A very long unit of length, about the height of the Burj Khalifa in Dubai, United Arab Emirates.



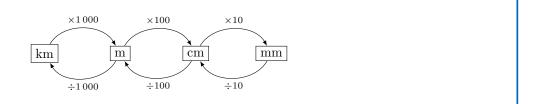
# C CONVERSION OF LENGTH UNITS

#### Definition Conversion of Length Units -

- $\bullet \ 1 \ \mathrm{km} = 1000 \ \mathrm{m}$
- 1 m = 100 cm
- 1 cm = 10 mm

## Method Converting using a Multiplication or a Division

- Use multiplication to go from a bigger unit to a smaller one (like meters to centimeters).
- Use division to go from a smaller unit to a bigger one (like centimeters to meters).



### Method Converting Using a Table —

To convert between units of length, we can use a conversion table. For example, to convert 4 meters to centimeters:

1. Write the units in the table: km, m, cm, mm.

km		m	$^{\mathrm{cm}}$	mm

2. Place the number in the column of the unit you start with.

km		m	cm	mm
		4		

3. Fill in zeros in the columns to the right until you reach the unit you want to convert to.

km		m		cm	mm
		4	0	0	

4. Read the number as a whole to get the converted value.

So, 
$$4 \text{ m} = 400 \text{ cm}$$
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