## Centimetres and Millimetres

This ruler measures in centimetres.
The numbers signify whole centimetres. All the shorter lines between those are for millimetres.

The distance from one short line to the next line is 1 millimetre.


We write 1 mm . Millimetres are very tiny!

Look at the ruler: there are $\mathbf{1 0}$ millimetres in each centimetre.
Measuring lines: First see how many whole centimetres long the line is. Then count how many little millimetre-lines beyond that it reaches.


This line is 2 cm 3 mm long. At the same time, it is 23 mm long. Why?
Each centimetre is 10 mm , so 2 cm is 20 mm . That means 2 cm 3 mm makes 23 mm in total.

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This line is 4 cm 8 mm long. At the same time, it is 48 mm long.

1. Measure the lines using the ruler, first in whole centimetres and millimetres. Then write their lengths using millimetres only.
a. $\qquad$ cm $\qquad$ mm = $\qquad$ mm

1
2
34
5
6
7
8
9
10
11
12
13
14
b. $\qquad$ cm $\qquad$ $\mathrm{mm}=$ $\qquad$ mm
 $\begin{array}{llllllllllllll}1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 & 13 & 14\end{array}$

C. $\qquad$ cm $\qquad$ mm = $\qquad$ mm
 $\begin{array}{llllllllllllll}1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 & 13 & 14\end{array}$
d. $\qquad$ cm $\qquad$ $\mathrm{mm}=$ $\qquad$ mm

|  |
| :---: |
| $\begin{array}{lllllllllllllllllllll}5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 & 13 & 14\end{array}$ |
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e. $\qquad$ cm $\qquad$ $\mathrm{mm}=$ $\qquad$ mm

f. $\qquad$ cm $\qquad$ $\mathrm{mm}=$ $\qquad$ mm
2. Draw lines using a ruler.
a. 7 cm 8 mm
b. 10 cm 5 mm
c. 14 mm
d. 55 mm
e. 126 mm
3. Measure items you can find at home, using a centimetre-millimetre ruler. If the item is not exactly as long as the markers on the ruler, choose the nearest mark.

| Item | Length |
| :--- | :--- |
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|  |  |

4. Convert between centimetres and millimetres.

| a. | b. | c. |
| :---: | :---: | :---: |
| $1 \mathrm{~cm}=\ldots \mathrm{mm}$ | $1 \mathrm{~cm} 1 \mathrm{~mm}=\underline{11} \mathrm{~mm}$ | $4 \mathrm{~cm} 5 \mathrm{~mm}=\ldots \mathrm{mm}$ |
| $2 \mathrm{~cm}=\ldots \mathrm{mm}$ | $1 \mathrm{~cm} 2 \mathrm{~mm}=\ldots \ldots \mathrm{mm}$ | $2 \mathrm{~cm} 5 \mathrm{~mm}=\ldots \mathrm{mm}$ |
| $5 \mathrm{~cm}=\ldots \mathrm{mm}$ | $1 \mathrm{~cm} 8 \mathrm{~mm}=\ldots \mathrm{mm}$ | $7 \mathrm{~cm} 8 \mathrm{~mm}=\ldots \mathrm{mm}$ |
| $8 \mathrm{~cm}=\ldots \mathrm{mm}$ | $2 \mathrm{~cm} 3 \mathrm{~mm}=\ldots \mathrm{mm}$ | $10 \mathrm{~cm} 4 \mathrm{~mm}=\ldots \mathrm{mm}$ |

5. Convert between millimetres and centimetres.

| a. | b. | c. |
| :---: | :---: | :---: |
| $70 \mathrm{~mm}=\ldots \mathrm{cm}$ | $12 \mathrm{~mm}=\ldots \ldots \mathrm{cm} \ldots \mathrm{mm}$ | $89 \mathrm{~mm}=\ldots \ldots \mathrm{cm} \ldots \ldots \mathrm{mm}$ |
| $100 \mathrm{~mm}=\ldots \mathrm{cm}$ | $45 \mathrm{~mm}=\ldots \ldots \mathrm{cm} \ldots \ldots \mathrm{mm}$ | $102 \mathrm{~mm}=\ldots \ldots \mathrm{cm} \ldots \ldots \mathrm{mm}$ |

6. Measure the sides of this triangle in millimetres.

Side AB $\qquad$ mm

Side BC $\qquad$ mm

Side CA $\qquad$ mm


