

WA5MMGTW2

Two-dimensional space and structures

Core + Challenge

NAPLAN-style

Measuring Length

I can choose metric units, estimate, and measure lengths in mm and cm, like $12.5 \text{ cm} = 125 \text{ mm}$.

Name: _____ Date: _____ Score: _____ / 56

Key idea

We measure length in **millimetres (mm)**, **centimetres (cm)**, **metres (m)** and **kilometres (km)**.

$10 \text{ mm} = 1 \text{ cm}$, $100 \text{ cm} = 1 \text{ m}$, $1000 \text{ m} = 1 \text{ km}$.

Choose a unit that **fits the size**: a bead in mm, a book in cm, a room in m, a trip in km.

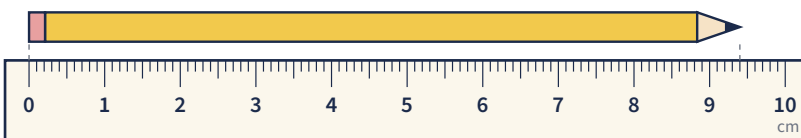
A length between two whole centimetres uses a **part unit**: 7 cm and 3 mm is **7.3 cm** or **73 mm**.

Estimate first, then measure from 0.

Example: the pencil below starts at 0 and ends 4 small marks past 9 cm, so it is **9.4 cm = 94 mm** long.

This pencil is **9.4 cm = 94 mm** long

1 cm = 10 mm (true size)

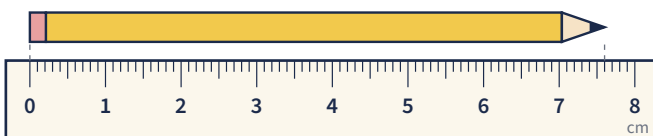


A Warm up *estimate, measure and choose units*

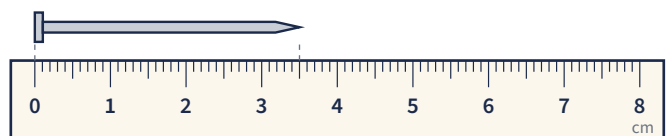
/ 16 marks

Measure each object. Write its length in **cm** and in **mm**. 1 mark each. (Print at 100% so the rulers are true size.)

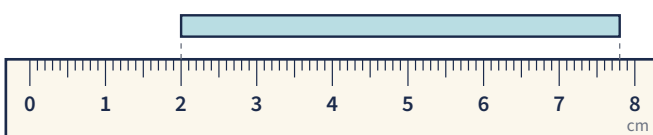
1 How long is the **pencil**?



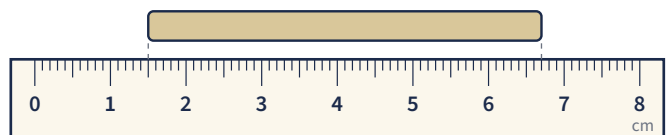
2 How long is the **nail**?



3 How long is the **ribbon**?



4 How long is the **eraser**?



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Write each length in the unit shown. 1 mark each.

5 Write **3 cm 4 mm** in **mm**.

6 Write **58 mm** in **cm**.

7 Write **1.5 m** in **cm**.

8 Write **3000 m** in **km**.

Estimate each line first. Then **measure** it with your ruler in **cm** and **mm**. 1 mark each (for the measurement).

9



Estimate: _____ **Measure:** _____

10



Estimate: _____ **Measure:** _____

11



Estimate: _____ **Measure:** _____

12



Estimate: _____ **Measure:** _____

Circle the **best** unit to complete each sentence. 1 mark each.

13 A new pencil is about **18** ____ long.

mm cm m km

14 An ant is about **5** ____ long.

mm cm m km

15 A netball court is about **30** ____ long.

mm cm m km

16 The ferry trip from Fremantle to Rottnest is about **18** ____.

mm cm m km

B

Practise *use the skill*

/ 21 marks

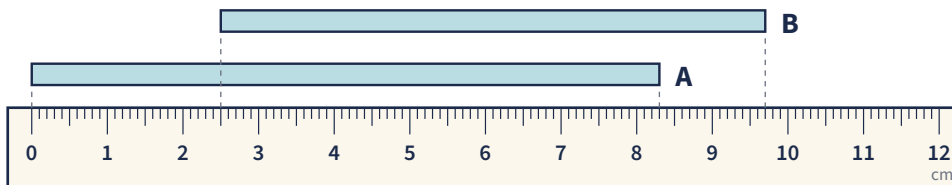
- 1 Use your ruler. Start at each dot. Draw a line with the length shown. [3 marks]

a) 6.5 cm •

b) 48 mm •

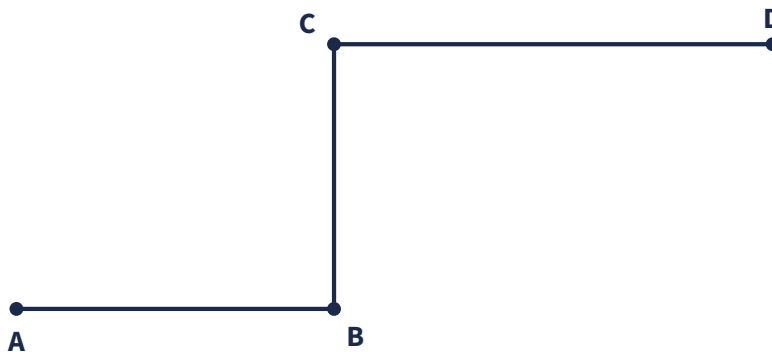
c) 11 cm 5 mm •

- 2 Two ribbons for the school fete are on the ruler. Measure both. How much **longer** is ribbon A than ribbon B? Give your answer in mm **and** cm. [2 marks]



Answer: _____

- 3 An ant walks along this path from A to D. Measure each part of the path. How far does the ant walk altogether? Give your answer in cm **and** mm. [3 marks]



Answer: _____

- 4 At the school athletics carnival, Zara jumped **2 m 35 cm** and Leo jumped **2.4 m**. Who jumped further? By how many **centimetres**? [2 marks]

Answer: _____

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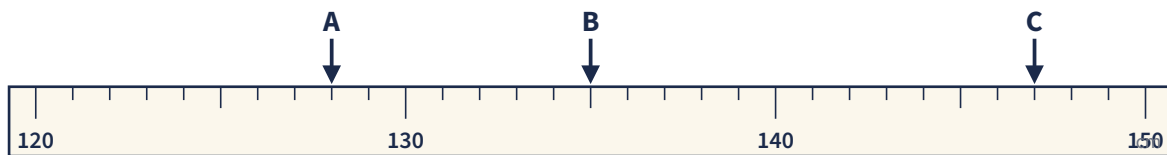
5 Draw a line to join each thing to its most likely length.

[2 marks]

thickness of a \$1 coin	•	•	1.4 m
length of a school ruler	•	•	70 km
height of a Year 5 student	•	•	3 mm
length of a Transperth bus	•	•	30 cm
Perth to Mandurah by train	•	•	12 m

6 Part of a height chart is shown. The arrows show the heights of three students. Write each height in **cm** and in **m**.

[3 marks]



A: _____

B: _____

C: _____

7 Sam rides **1.5 km** to school and **1.5 km** home again, **5 days** a week. How far does he ride in a week? Give your answer in **km** and in **m**.

[2 marks]

Answer: _____

8 Circle the length that is the **same** as the one given.

[2 marks]

a) 3.6 m is the same as

36 cm

306 cm

360 cm

3600 cm

b) 2 km 50 m is the same as

250 m

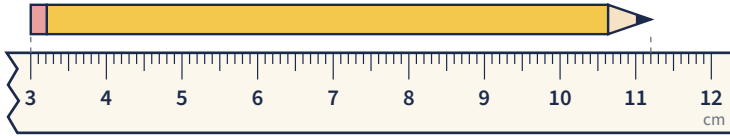
2050 m

2500 m

20 050 m

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- 9 Ruby's ruler is **broken**, so it starts at 3 cm. How long is her pencil? Explain how you worked it out. [2 marks]

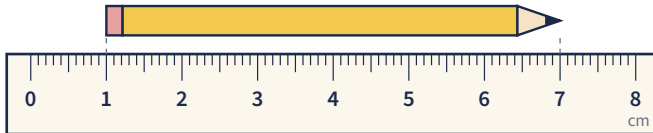


Answer: _____

C Think it through *explain your thinking*

/ 10 marks

- 1 Jack says the pencil is **7 cm** long because it ends at 7. Do you agree with Jack? Explain. [2 marks]



- 2 **True or false?** “0.5 m is shorter than 45 cm.” Show how you know. [2 marks]

- 3 **Always, sometimes or never true?** “A length has a bigger number when it is written in mm than when it is written in cm.” Circle one and explain. [2 marks]

Always

Sometimes

Never

- 4 Which length is the **odd one out**? 1.2 m, 120 cm, 1200 mm, 12 cm. Explain. [2 marks]

- 5 Priya says, “There are 10 mm in 1 cm and 100 cm in 1 m, so there are **110 mm** in 1 m.” Do you agree with Priya? Explain. [2 marks]

D**Challenge** *stretch yourself*

/ 9 marks

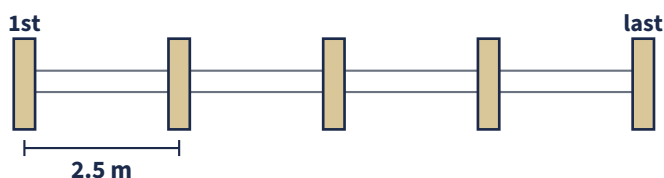
- 1 Ella has three sticks: **4 cm**, **7 cm** and **9 cm**. She can put sticks **end to end**, or put one stick **beside** others and use the **difference**. Each stick can be used **at most once**. Which whole-centimetre lengths from **1 cm to 10 cm** can she measure? Show how for each. Which can she **not** measure? [3 marks]

Answer: _____

- 2 Tom's step is **60 cm** long. He walks from his classroom to the canteen in **45 steps**. **a)** How far is that in **metres**? **b)** Kira's step is **50 cm** long. How many steps does Kira take for the same walk? **c)** How many **more** steps is that than Tom? [3 marks]

Answer: _____

- 3 Fence posts are put in a straight line with **2.5 m** between each post. **a)** How far is it from the 1st post to the last post when there are **5** posts? **b)** When there are **11** posts? **c)** A fence is **40 m** long with a post at each end. How many posts does it need? [3 marks]



Answer: _____

How did I go?Warm up ____ / 16 Practise ____ / 21 Think it through ____ / 10 Challenge ____ / 9 **Total** ____ / 56Want help with Year 5 maths? Our tutors make it click. **Book a free trial class at [edulift.com.au](https://www.edulift.com.au)**