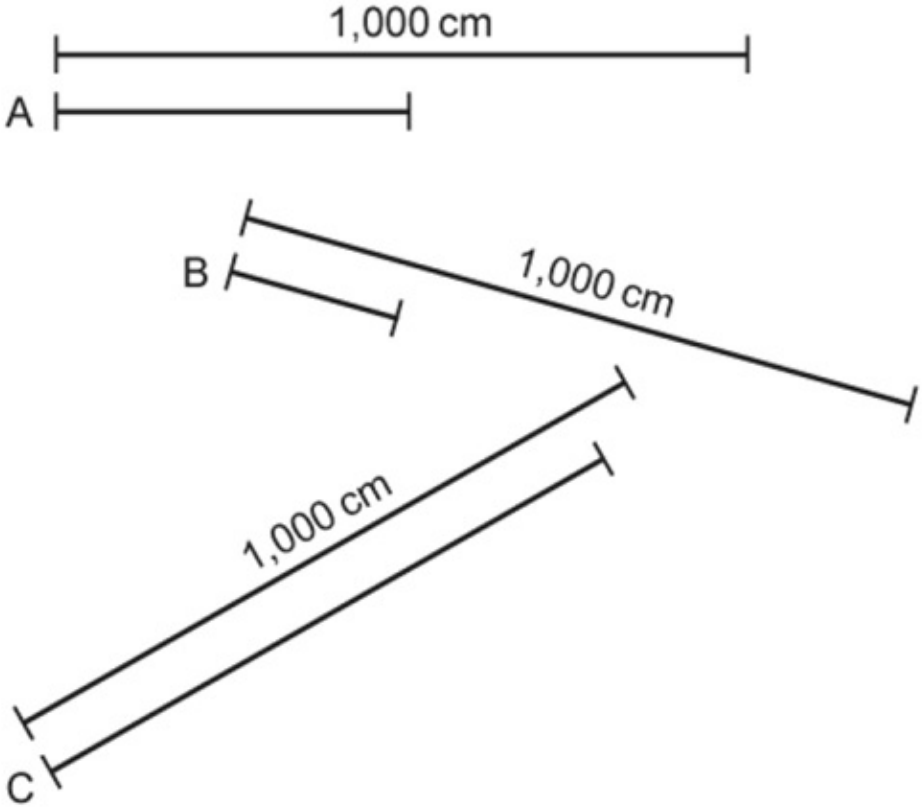
1. How many **centimetres** long is the ribbon?

cm

1 mark

2. Look at lines A, B and C.

Can you **estimate** how long they are by comparing them to the 1,000cm lines?



2 marks

3. How many **10cm** lengths can a **310cm** length of ribbon be cut into?

1 mark

4. Draw one line which is **twice as long** as this line.

Use a ruler.

1 mark

5. Put a ring around how long you think this line is.

5 cm

16 cm

8 cm

12 cm

20 cm

1 mark

6. One side of a square is **5 cm** long.

What is the total length around **all** it sides?

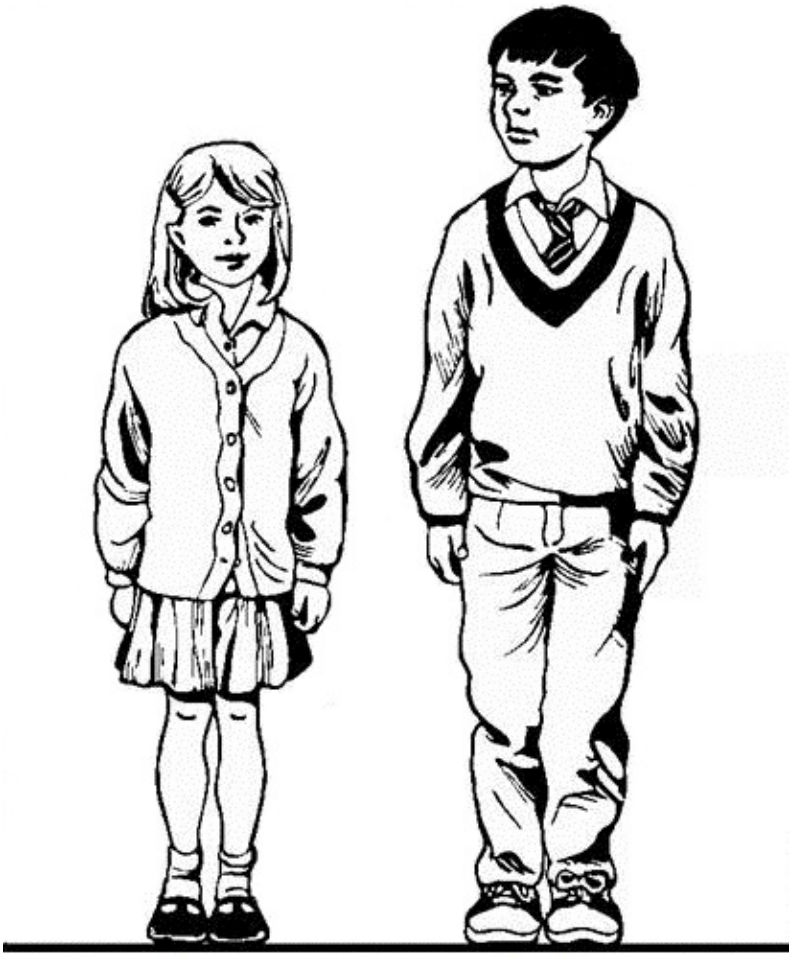
cm

1 mark

7. Megan is **109cm** tall.

Sunil is **137cm** tall.

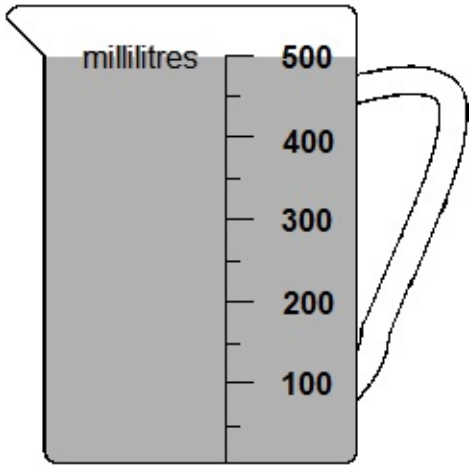
How much taller is Sunil than Megan?



cm

1 mark

8. This jug has water in it.



Ravi pours **150 millilitres** of water out of this jug.

How much water will be left in the jug?

millilitres

1 mark

9. Sita has **3m 60cm** of ribbon.

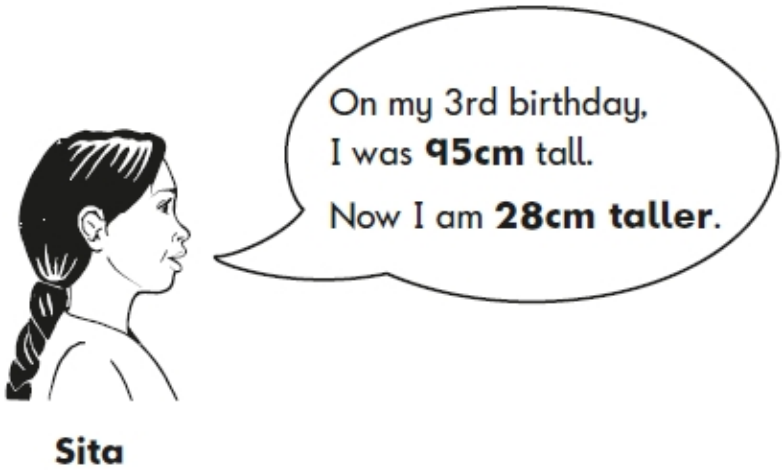
She cuts it into **3** equal pieces.

How long is each piece?

m cm

1 mark

10.



Sita

How tall is Sita now?

	cm

1 mark

11. Ravi walks through the front door of his house.

Tick (✓) the height the door is most likely to be.

Tick **one**.

1 metre ☐

2 metres ☐

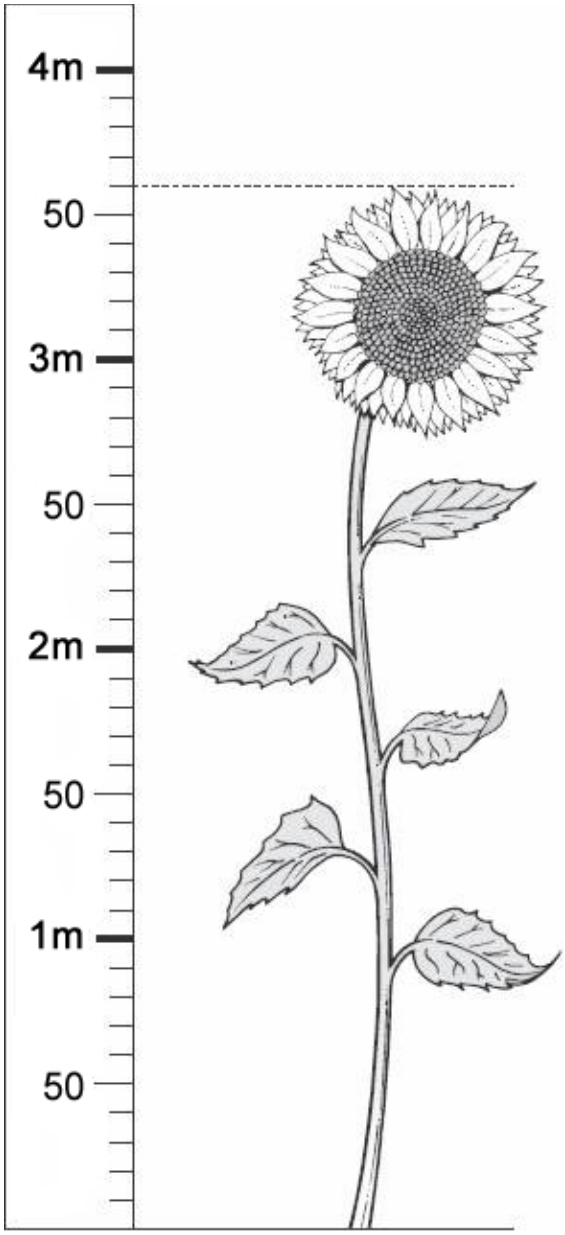
5 metres ☐

10 metres ☐

100 metres ☐

1 mark

12.



How tall is the sunflower?

m cm

1 mark

13. Three sticks fit along one side of this book.

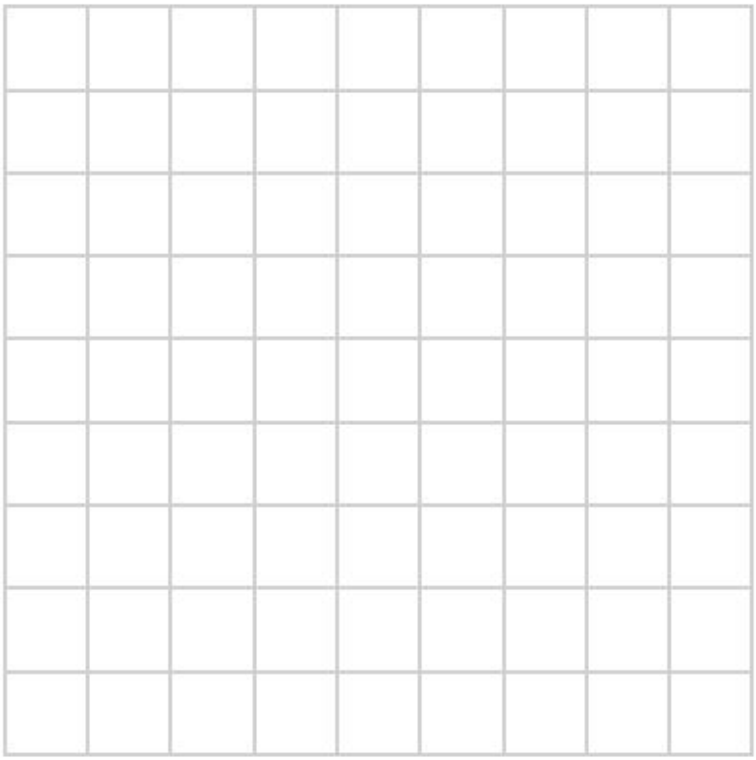
Estimate how many sticks fit around **all four sides** of the book.

sticks

1 mark

14. Draw a rectangle **7 cm** long and **3 cm** wide.

Use a ruler.



1 mark

15. **Square units**

Gustav says:

> There are **100** square centimetres in a square metre.

Gustav is **wrong**.

How many square centimetres are there in a square metre?

cm^2

1 mark

16. **High jump**

Dave and Steve are in a high jump competition.

Dave jumps $1\frac{1}{4}$ metres.

Steve jumps **1.4** metres.

Who jumps higher? Tick (✓) Dave or Steve.

☐ Dave ☐ Steve

How much higher does he jump?

Give your answer in metres.

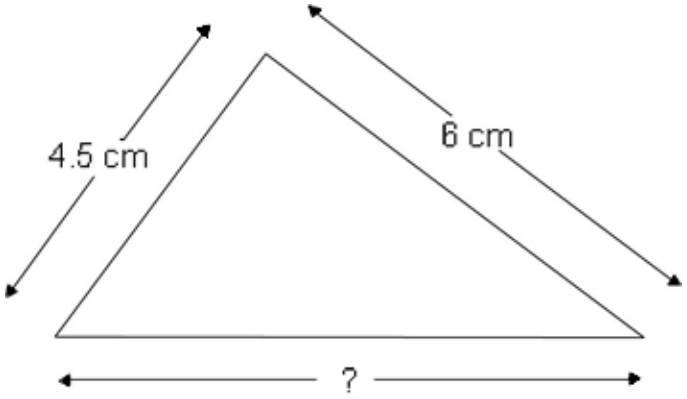
Show your method

metres

2 marks

17. **Measure**

Here is a triangle.



(a) Measure the length of the longest side.

cm

1 mark

(b) What is the **perimeter** of this triangle?

cm

1 mark

18. **3.5**

Three pupils answered different questions.

This is what each pupil's calculator showed:

(a) Asim's question was about **money**.

Complete the sentence:

3.5 means £3 and _____ pence.

1 mark

(b) Ben's question was about **time**.

Complete the sentence:

3.5 means 3 hours and _____ minutes.

1 mark

(c) Charlie's question was about **length**.

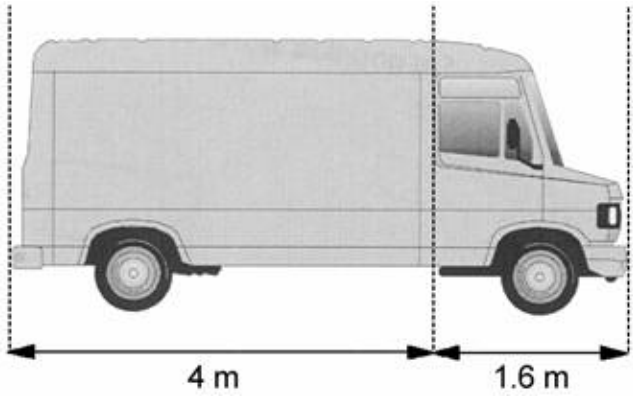
Complete the sentence:

3.5 means 3 metres and _____ centimetres.

1 mark

19. **Using decimals**

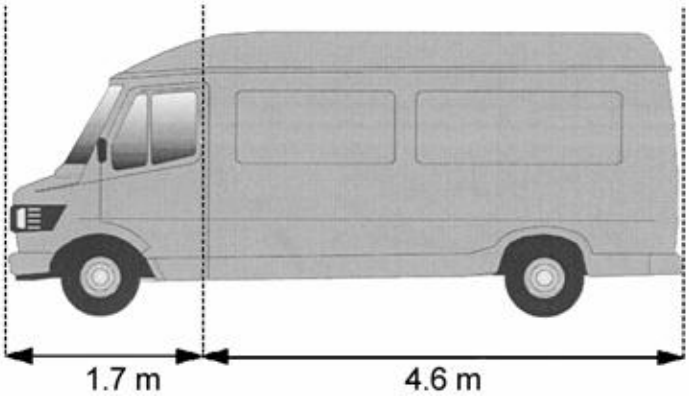
(a) Work out the total length of this van.



m

1 mark

(b) Now work out the total length of this van.

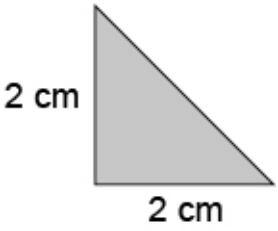


m

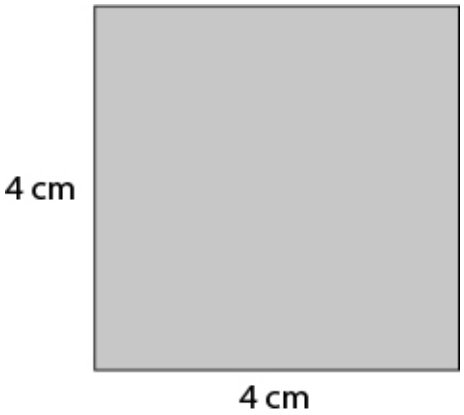
1 mark

20. **Triangles**

This is a right-angled triangular tile.



How many of these triangular tiles fit together to make a 4cm by 4cm square?

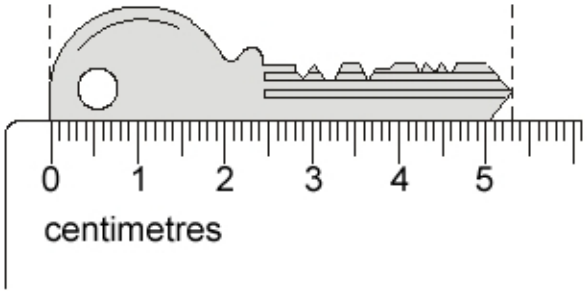


1 mark

21. **Keys**

The diagrams in this question are not drawn accurately.

(a) The diagram shows Jo's key.

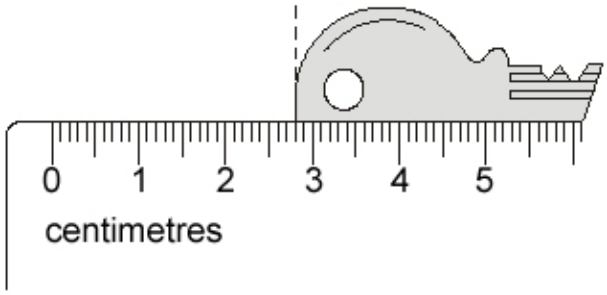


Use the scale to find the length of Jo's key.

cm

1 mark

(b) This time you cannot see all of Jo's key.



One end is at 2.8cm on the scale.

Where is the other end on the scale?

cm

1 mark

22. (a) Tick (✓) the correct box to show about **how long a car** is.

- ☐ 4 millimetres
- ☐ 4 centimetres
- ☐ 4 metres
- ☐ 4 kilometres

1 mark

(b) Tick (✓) the correct box to show the **temperature in a freezer**.

- ☐ 180°C
- ☐ −18°C
- ☐ 18°C
- ☐ 1.8°C

1 mark

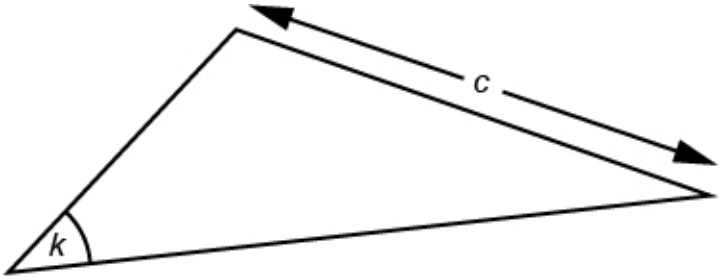
(c) Tick (✓) the correct box to show about how much **a cat weighs**.

- ☐ 3 grams
- ☐ 30 kilograms
- ☐ 30 grams
- ☐ 3 kilograms

1 mark

23. **Triangle**

Look at the triangle.



(a) Measure accurately length c.

$c =$ ☐ cm

1 mark

(b) Measure accurately angle k.

$k =$ ☐ °

1 mark

24. **Measures**

Tick (✓) the best estimate for each of the following.

(a) The height of a door.

☐ 2 millimetres ☐ 2 centimetres

☐ 2 metres ☐ 2 kilometres

1 mark

(b) The length of a pen.

☐ 14 millimetres ☐ 14 centimetres

☐ 14 metres ☐ 14 kilometres

1 mark

(c) The distance between Leeds and Manchester.

☐ 64 millimetres ☐ 64 centimetres

☐ 64 metres ☐ 64 kilometres

1 mark

25. Draw one line which is **twice as long** as this line.

Use a ruler.

1 mark

26. Jason stands beside the front door of his house.

Tick (✓) the height the door is most likely to be.

1 metre

2 metres

4 metres

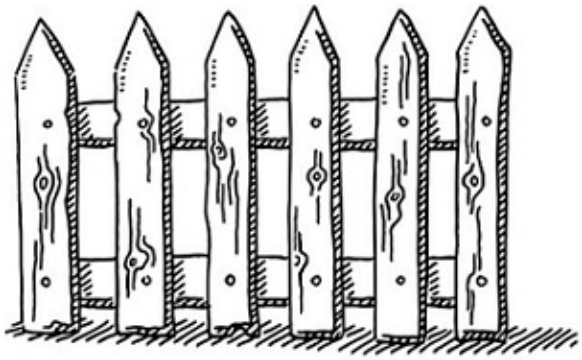
7 metres

10 metres

1 mark

27. I need to buy **32 metres** of fencing to go around my garden.

The fencing is sold in **8 metre** lengths.



How many 8-metre lengths do I need to buy?

1 mark

28. Complete the calculation.

250 cm = 65 cm + ☐ cm

1 mark

29. Hazeem is growing a sunflower and a bean plant.

So far, his sunflower plant is **14cm** tall and his bean plant is **8cm** tall.

NOT drawn to scale

How much taller is the sunflower plant than the bean plant?

cm

1 mark

30. I have **6** metres of red ribbon and **6** metres of blue ribbon.

How many metres of ribbon do I have altogether?

m

1 mark

31. Mr Kahn drove **8km** to get to his friend's house.

He then drove **another 3km** with his friend to get to the gym.

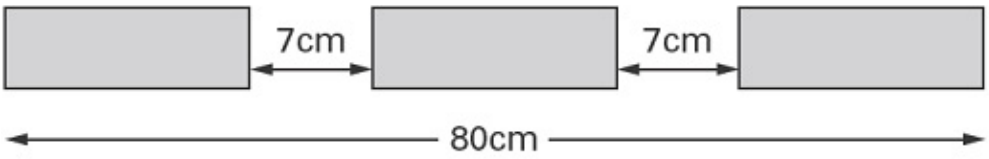
How far did Mr Kahn drive?

km

1 mark

32. Three identical blocks are placed in line 80 centimetres long.

The gaps between the blocks are each 7cm.



Not drawn to scale

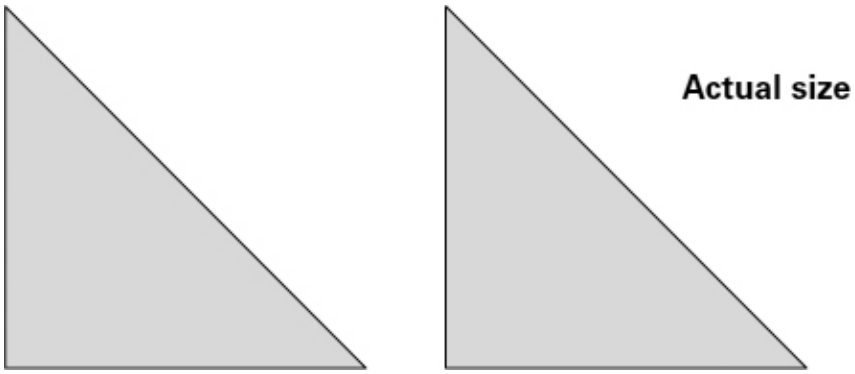
Work out the length of each block.

Show your method

cm

2 marks

33. These two triangles are the same.



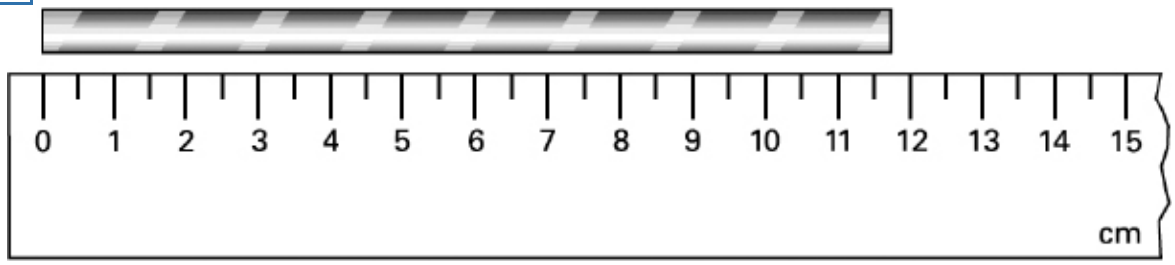
Jade fits them together to make a **square**.

What is the total length around all the sides of the **square**?

cm

1 mark

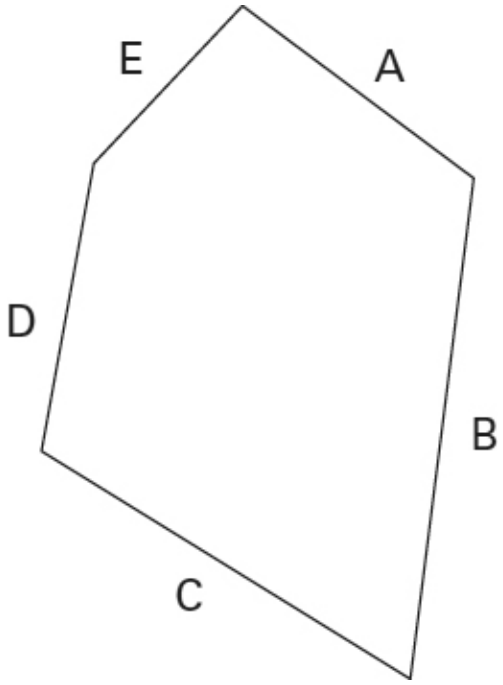
34. What is the length of the straw to the **nearest centimetre**?



cm

1 mark

35. Here is a shape.



Two sides of the shape are the same length.

Use a ruler to find them.
Write their letters.

☐ **and** ☐

1 mark

Mark schemes

1. 70 cm

Accept 0.7 ***m***

[1]

2. Award **TWO** marks for all three correct, as shown:

A = 450 - 550 cm inclusive

B = 200 – 300 cm inclusive

C = 800 – 950 cm inclusive

If incorrect, award **ONE** mark for any two correct.

Up to 2m

[2]

3. 31

[1]

4. Straight line 12 cm long.

Accept any measurement between 11.7 cm and 12.3 cm. Award the mark if the child extends the 6 cm line to make it 12 cm long.

[1]

5. 12 cm circled

If other numbers circled, award no mark unless intention is clear by crossing out.

[1]

6. 20 (cm)

[1]

7. 28 (cm)

[1]

8. 350 (millilitres)

[1]

9. 1 (m) 20 (cm)

[1]

10. 123 (cm)

Accept 1m 23 (cm).

[1]

11. Height ticked as shown:

1 metre

2 metres ✓

5 metres

10 metres

100 metres

Accept any other clear way of indicating the correct height.
***Do not** award the mark if more than one height is indicated, unless it is clear that the correct height is the child's final choice.*

[1]

12. 3 (m) 60 (cm)

Accept 0 m 360 cm or 3.6 m 0 cm.

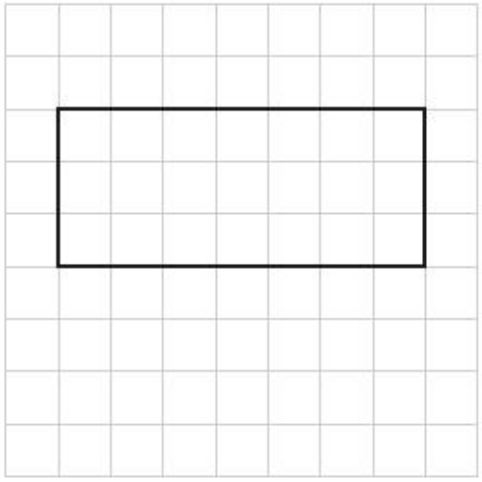
[1]

13. Accept answers in the range 14 to 18 (sticks) inclusive.

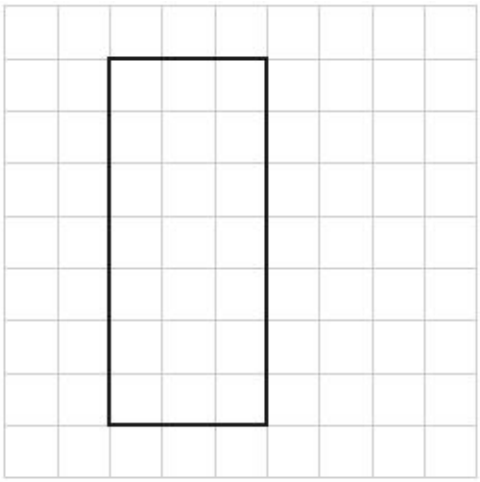
***Do not** accept 12.*

[1]

14. Rectangle drawn with the correct dimensions 7 cm × 3 cm, e.g.



OR 3 cm × 7 cm

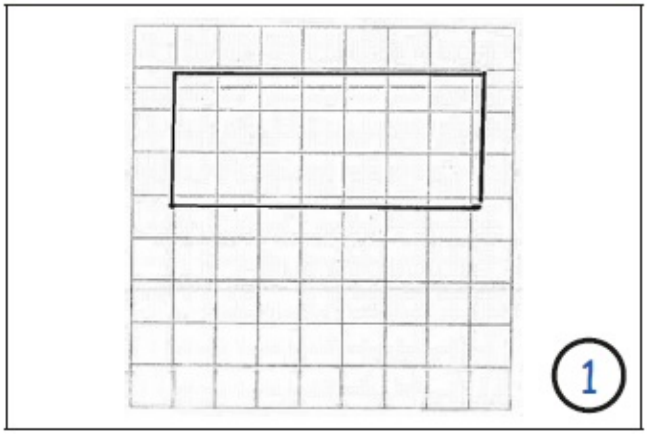


Accept any orientation of the rectangle, with the correct dimensions.
Accept slight inaccuracies of drawing the rectangle as long as the intention is clear; allowing a tolerance of up to 5 mm.
Use the example responses to help determine how the mark can be awarded.

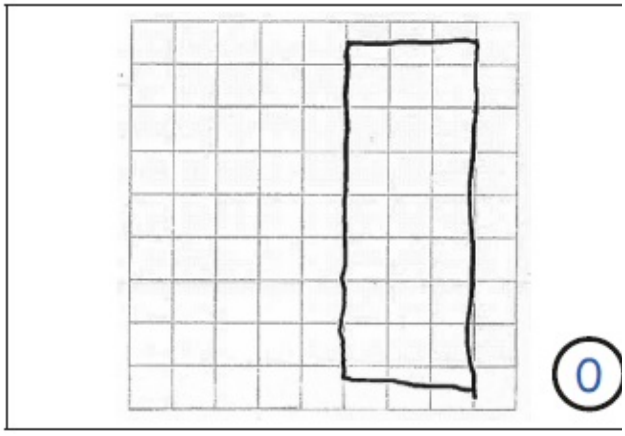
[1]

Example responses

Ashley: 1 mark

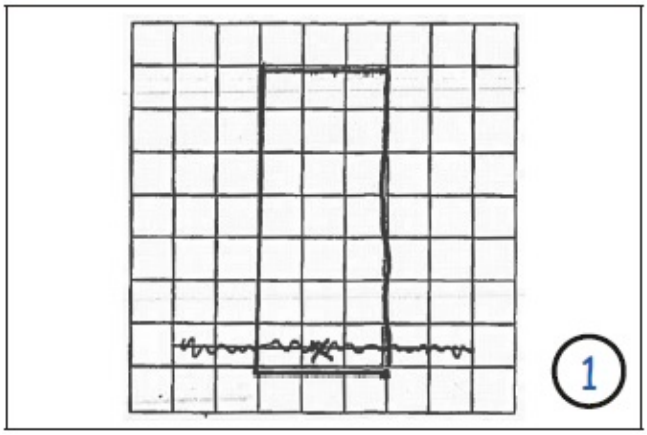


Georgia: 0 marks

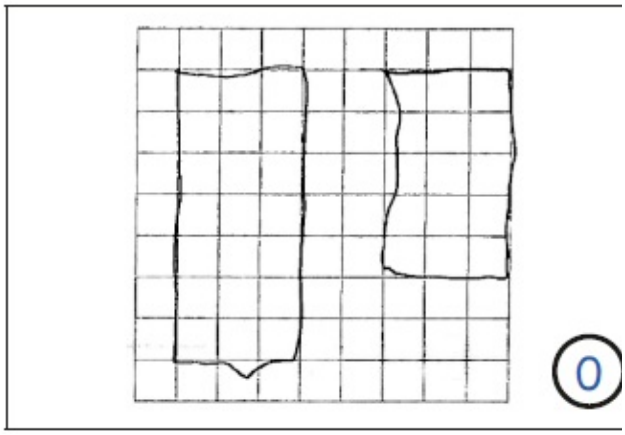


Ashley has drawn a rectangle that is slightly inaccurate (7.2 cm × 3.1 cm), but within the tolerance allowed (5 mm), so he is awarded **one mark**. In contrast, Georgia has drawn a rectangle that is outside of the tolerance allowed, and is awarded **no marks**.

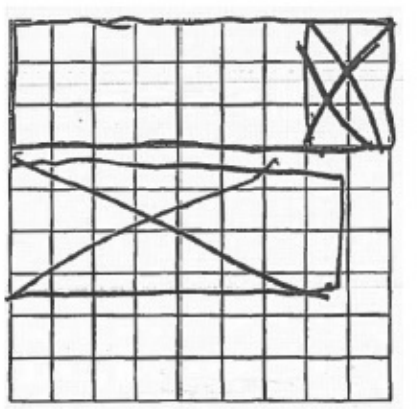
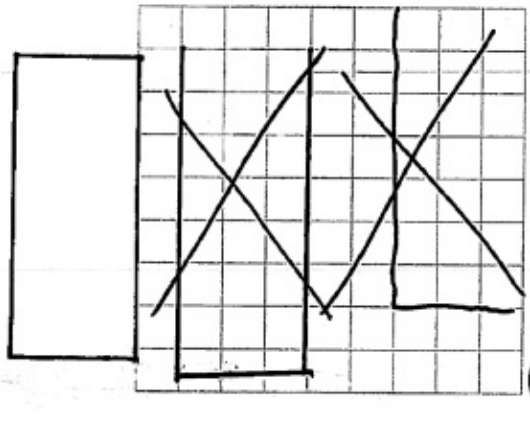
Cristina: 1 mark



Alfie: 0 marks



Cristina has superimposed a rectangle that has the correct dimensions over the first line she drew. Her intended answer is clear and she is awarded **one mark**. Alfie has drawn two rectangles and one of them is correct with slight inaccuracies. However, he has not indicated which rectangle is his intended answer. As a result, general marking principle 7 is applied and **no marks** can be awarded.

Louise: 1 mark	Matteo: 1 mark
	

Both Louise and Matteo have made corrections in their creditworthy responses. Louise has corrected her response by crossing out. Therefore, she is awarded **one mark**. Similarly, Matteo has corrected his answer, but he has not used the grid for his intended answer. However, he has drawn a rectangle that is creditworthy and therefore is awarded **one mark**.

15. 10 000

Do not accept incomplete processing, eg

- 100^2

[1]

16. Indicates Steve and gives the value 0.15 or equivalent

2

or Shows the value 0.15 or equivalent

or

Indicates Steve and shows the digits 15

or

Indicates Steve and shows either the value 1.25 or equivalent decimal or the value 125

or

Indicates Steve and converts both heights to mixed numbers or fractions, where the fractions have a common denominator, eg

- $1\frac{10}{40}, 1\frac{16}{40}$

1

[2]

17. (a) Gives a value from 7.4 to 7.6 inclusive, or equivalent

1

(b) Gives a value from 17.9 to 18.1 inclusive, or equivalent
Accept follow through as 10.5 + their (a)

1

[2]

18. (a) 50

1

(b) 30

1

(c) 50

1

[3]

19. (a) 5.6 or equivalent

1

(b) 6.3 or equivalent

! Change of units
Complete correct use of the new units must be shown, eg for part (a) accept
- *5m 60cm*
- *560cm*

However, if the only error is to consistently omit 'cm', mark as 0; 1, eg
- *5m 60, 6m 30*
- *560, 630*

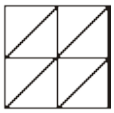
1

[2]

20. 8

! Triangles indicated on diagram
Ignore

! Answer of 8cm (or 8cm^2)
As this could result from adding the given dimensions, do not accept unless the 8 is supported by further working, eg accept



Answer: 8cm

U1

[1]

21. (a) 5.3

Accept equivalent fractions or decimals

1

(b) 8.1

! Follow through
Accept follow through as their (a) + 2.8, provided this requires 'bridging the units' eg, from their (a) as 6.4 accept
- *9.2*

U1

[2]

22. (a) Indicates only 4 metres, ie

☐ ☐

☑ 4 metres ☐

1

(b) Indicates only –18°C, ie

☐ ☑ –18°C

☐ ☐

1

(c) Indicates only 3 kilograms, ie

☐ ☐

☐ ☑ 3 kilograms

1

[3]

23. (a) Award **ONE** mark for an answer in the range 7.3 cm to 7.7 cm inclusive

Accept equivalent fractions or decimals

1

(b) Award **ONE** mark for an answer in the range 38 to 42 inclusive

1

[2]

24. (a) Indicates 2 metres, ie

☐	☐
☑ 2 metres	☐

1

(b) Indicates 14 centimetres, ie

☐	☑ 14 centimetres
☐	☐

1

(c) Indicates 64 kilometres, ie

☐	☐
☐	☑ 64 kilometres

1

[3]

25. Straight line 9 cm long. *(Note to teacher: please check that a 4.5cm line was printed on pupil sheet, otherwise amend the mark scheme accordingly)*

Accept any measurement between 8.7 cm and 9.3 cm.
Award the mark if the child extends the 4.5 cm line to make it 9 cm long.

[1]

26. Height ticked as shown:

1 metre

2 metres ✓

4 metres

7 metres

10 metres

Accept any other clear way of indicating the correct height.
***Do not** award the mark if more than one height is indicated, unless it is clear that the correct height is the child's final choice.*

[1]

27. 4

[1]

28. 250 cm = 65 cm + **185** cm

[1]

29. 6 cm

Assessment guidance: For pupils to have met criterion 3NF–1, they need to be able to add and subtract within and across 10 without counting forwards or backwards in ones on their fingers, on a number line or in their heads. Pupils need to be able to automatically recall the facts within 10 and be able to mentally apply strategies for calculation across 10, with accuracy and speed. Teachers should assess pupils in small groups – simply providing the correct answers to the example questions does not demonstrate that a pupil has met the criterion.

[1]

30. 12 m

Assessment guidance: For pupils to have met criterion 3NF–1, they need to be able to add and subtract within and across 10 without counting forwards or backwards in ones on their fingers, on a number line or in their heads. Pupils need to be able to automatically recall the facts within 10 and be able to mentally apply strategies for calculation across 10, with accuracy and speed. Teachers should assess pupils in small groups – simply providing the correct answers to the example questions does not demonstrate that a pupil has met the criterion.

[1]

31. 11 km

Assessment guidance: For pupils to have met criterion 3NF–1, they need to be able to add and subtract within and across 10 without counting forwards or backwards in ones on their fingers, on a number line or in their heads. Pupils need to be able to automatically recall the facts within 10 seconds, and be able to mentally apply strategies for calculation across 10, with accuracy and speed. Teachers should assess pupils in small groups – simply providing the correct answers to the example questions does not demonstrate that a pupil has met the criterion.

[1]

32. Award **two** marks for the correct answer of 22

If both marks are awarded, record by entering 1 in each marking space.

If the answer is incorrect, award **ONE** mark for evidence of appropriate method, eg
80 − 7 − 7 = 66
66 ÷ 3

*An answer need not be given for the award of **ONE** mark.*
*Award **ONE** mark by entering 1, 0 in the marking spaces.*

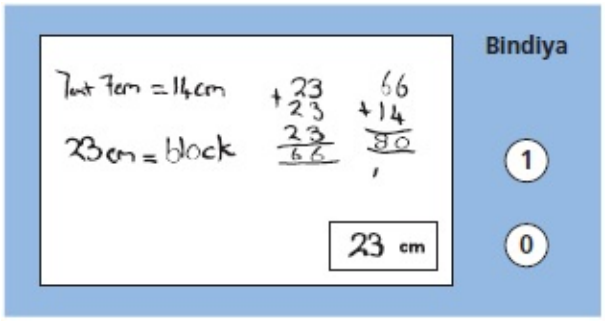
Up to 2m
U1

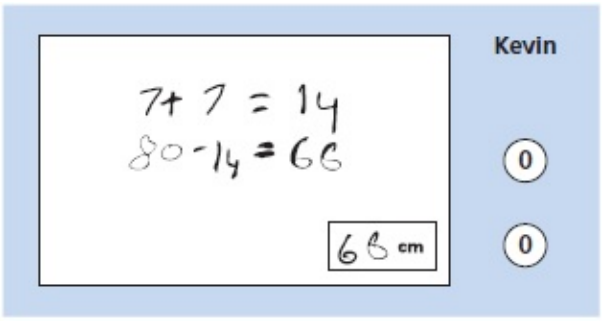
[2]

Example responses

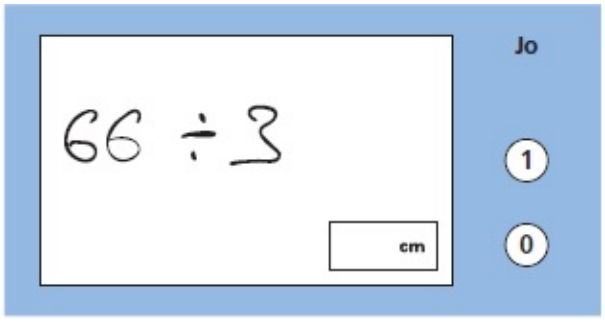
1 mark	0 marks

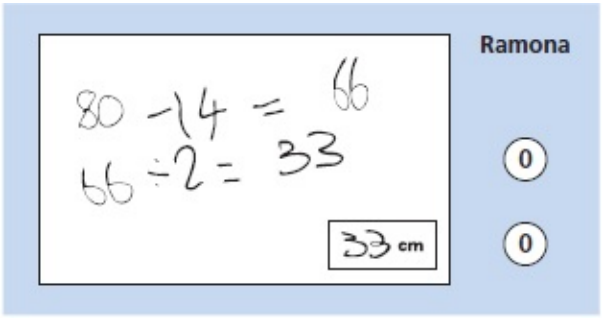
Bindiya and Kevin have both identifi ed the need to add together the length of the two gaps and then fi nd the difference between their answer and 80cm, the total length of the line. Bindiya continued her method to attempt to fi nd the length of a single block, but made an arithmetic error to reach an incorrect fi nal answer. Despite this error, she has used a complete and viable method, so can be awarded one mark. Unlike Bindiya, Kevin has not attempted to calculate the length of a single block. Therefore his method is not complete so he cannot be awarded one mark.





Jo has not recorded a method for fi nding the difference between 80 and two lots of seven, but we can assume that she did this since she recorded the correct answer 66 in her subsequent division. She has recorded the division 66 ÷ 3 to fi nd the length of a single block. Jo can be awarded one mark for recording a method that we can assume to be correct and complete; in the calculator-allowed test she is not required to give a final answer for the award of one mark. Ramona has also subtracted the length of the gaps from 80cm to give 66cm. However, she has then divided 66 by 2 instead of 3. She cannot be awarded one mark, since the final stage of her method is not correct.





33. 20

Accept answers between 19.6 and 20.4 exclusive.

U1

[1]

34. 12

[1]

35. A **AND** D

Both *letters must be correct for the award of the mark.*
Letters may be given in either order.
Accept unambiguous indications on the diagram, eg measurements for A and D marked correctly on the diagram.

[1]