Q1.

Here are the temperatures in four cities at midnight and at midday.

	Temperature	
City	**At midnight**	**At midday**
Paris	−4°C	−2°C
Oslo	−13°C	−7°C
Rome	3°C	10°C
Warsaw	−6°C	2°C

At **midnight**, how many degrees colder was Paris than Rome?

degrees

1 mark

Which city was 6 degrees colder at midnight than at midday?

_____

1 mark

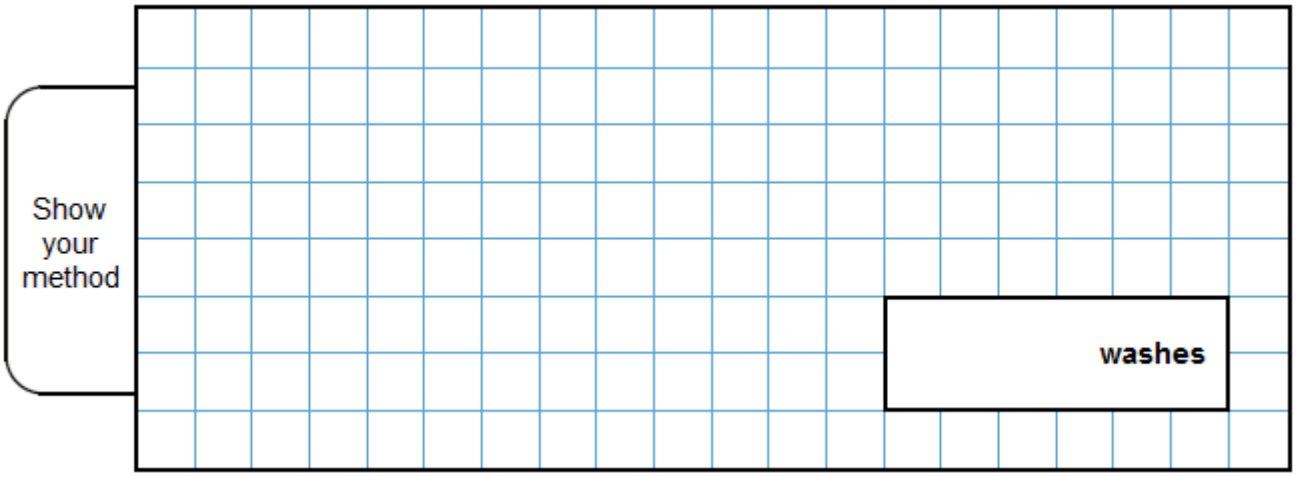
Q2.

A box contains 2.6 kg of washing powder.

Jack uses 65 grams of powder for each wash.

He uses all the powder.

How many washes did Jack do?



2 marks

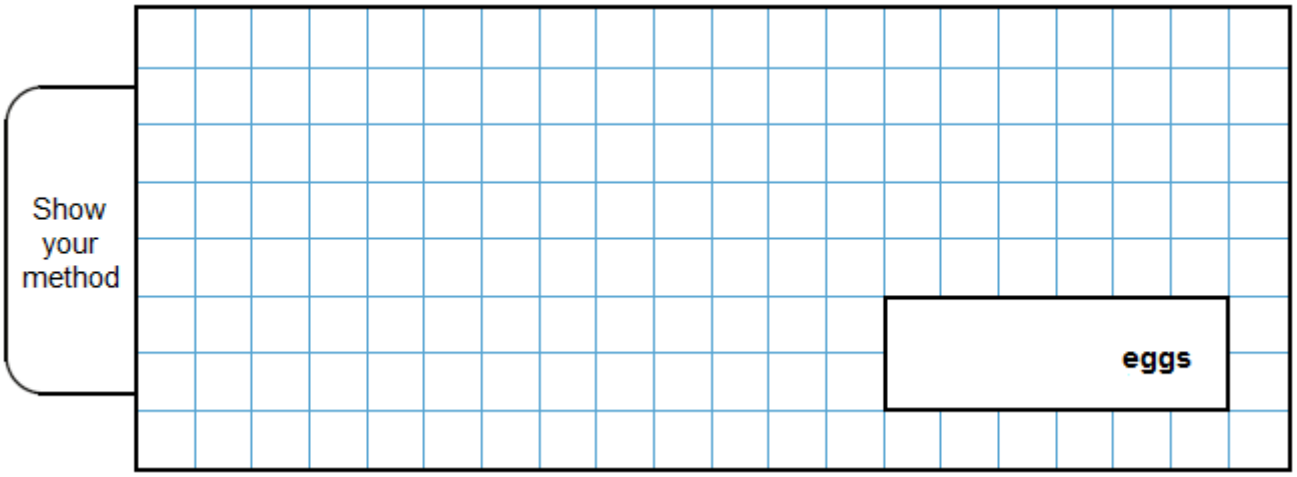
Q3.

In March, Ken collects 2, 3 or 4 eggs each day from his hens.

In the first 20 days, Ken collects 57 eggs altogether.

There are 31 days in March.

What is the **greatest** number of eggs Ken can collect in March?



2 marks

Q4.

Here is a rule for the time it takes to cook a chicken.

Cooking time = 20 minutes plus an extra 40 minutes for each kilogram

How many minutes will it take to cook a 3 kg chicken?

minutes

1 mark

What is the mass of a chicken that takes 100 minutes to cook?

kg

1 mark

Q5.

William wants to travel to Paris by train.

He needs to arrive in Paris by **5:30 pm**.

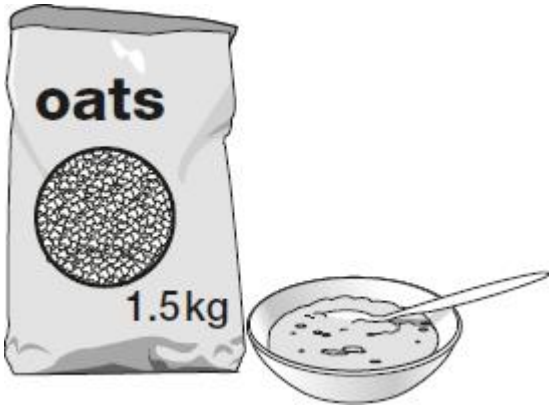
Circle the **latest time** that William can leave London.

Leaves London	Arrives Paris
12:01	15:22
12:25	15:56
13:31	16:53
14:01	17:26
14:31	17:53
15:31	18:53
16:01	19:20

1 mark

Q6.

A packet contains 1.5 kg of oats.



Every day Maria uses 50 g of oats to make porridge.

How many days does the packet of oats last?

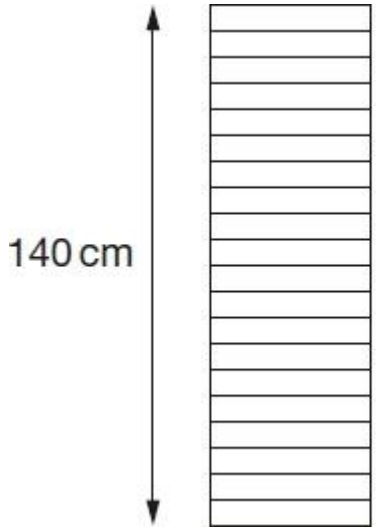
Show your method

days

2 marks

Q7.

A stack of 20 identical boxes is 140 cm tall.



Not actual size

Stefan takes **three** boxes off the top.

How tall is the stack now?

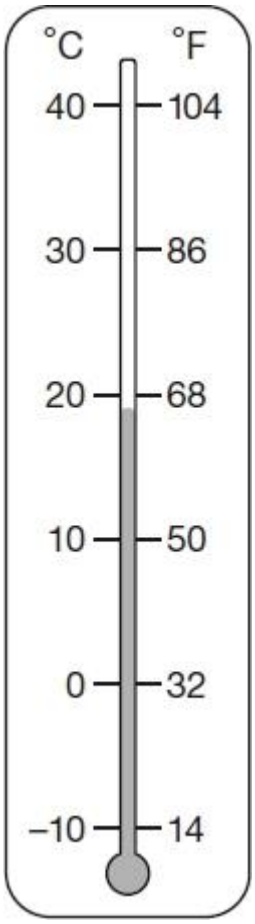
Show your method

cm

2 marks

Q8.

This thermometer shows temperatures in both °C and °F.



Work out what **25°C** is in °F.

Show your method

°F

2 marks

Q9.

This table shows the temperature at 9 am on three days in January.

1st January	8th January	15th January
+5°C	–4°C	+1°C

What is the difference between the temperature on 1st January and the temperature on 8th January?

°C

1 mark

On 22nd January the temperature was 7 degrees lower than on 15th January.

What was the temperature on 22nd January?

°C

1 mark

Q10.

Here is part of the bus timetable from Riverdale to Mott Haven.

Riverdale	10:02	10:12	10:31	10:48
Kingsbridge	10:11	10:21	10:38	10:55
Fordham	10:28	10:38	10:54	11:11
Tremont	10:36	10:44	11:00	11:17
Mott Haven	10:53	11:01	11:17	11:34

How many minutes does it take the 10:31 bus from Riverdale to reach Mott Haven?

minutes

1 mark

Mr Evans is at Fordham at 10:30

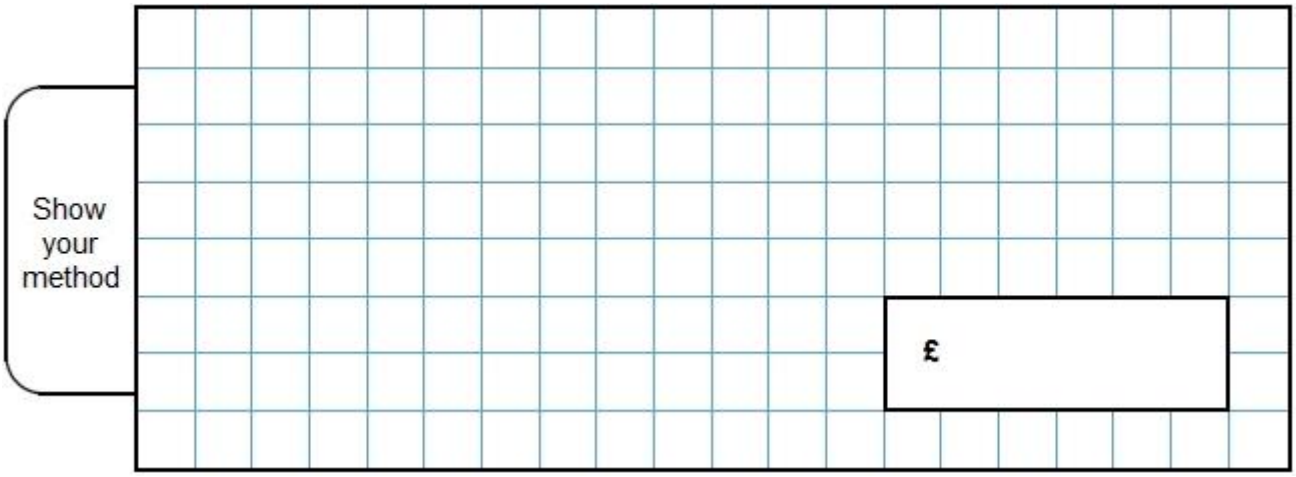
What is the **earliest** time he can reach Tremont on the bus?

1 mark

Q11.

One gram of gold costs £32.94

What is the cost of **half a kilogram** of gold?

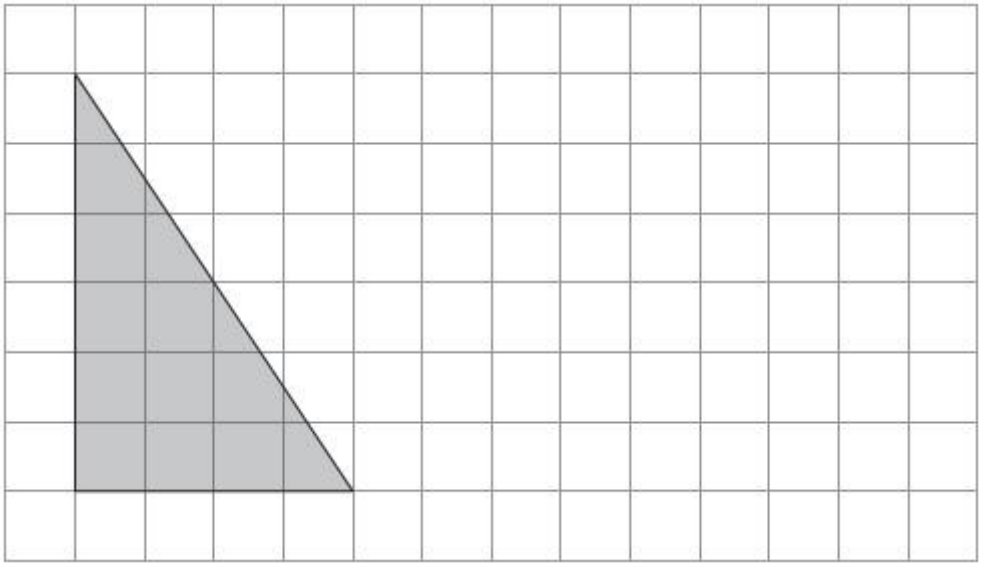


2 marks

Q12.

Draw a rectangle on the grid that has **half** the area of the shaded triangle.

Use a ruler.



1 mark

Q13.

Here is part of the morning bus timetable from Winton to Yansley.

Winton	9:35	9:55	10:15	10:35

Ingham	9:45	10:05	10:25	10:45
Carston	10:01	10:21	10:41	11:01
Dubley	10:23	10:43	11:03	11:23
Yansley	10:55	11:15	11:35	11:55

How many minutes does the bus take to get from Ingham to Dubley?

minutes

1 mark

Megan is in Carston.

She wants to be in Yansley before 11:30

What is the time of the latest bus she can take from Carston?

:

1 mark

One morning, the 10:35 bus from Winton gets to Carston 3 minutes early.

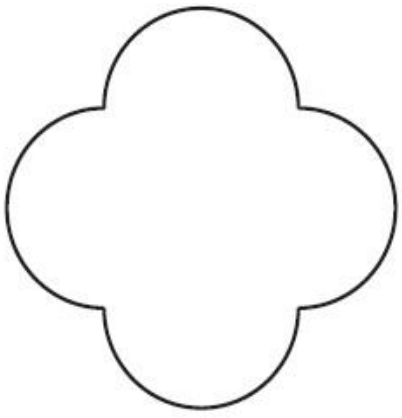
What time does it get to Carston?

:

1 mark

Q14.

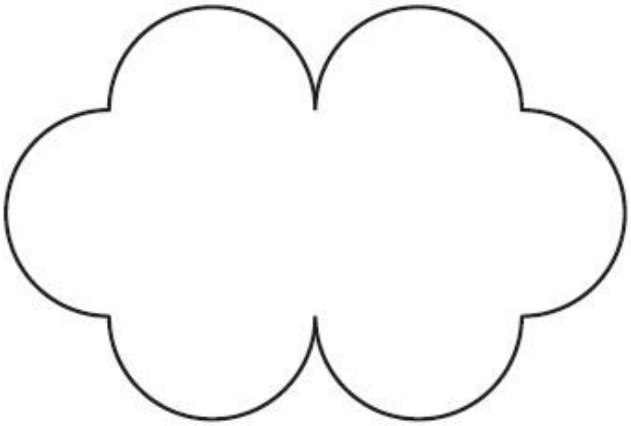
This shape is made out of four identical curves.



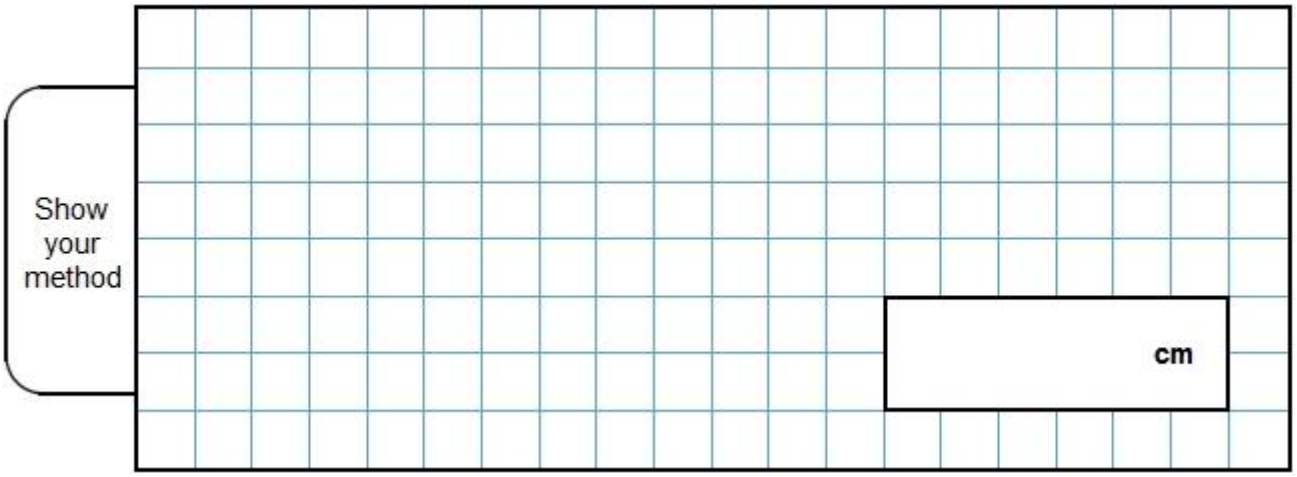
Not actual size

The perimeter of the shape is 28 centimetres.

A new shape is made out of curves of the same size.



What is the perimeter of the new shape?



2 marks

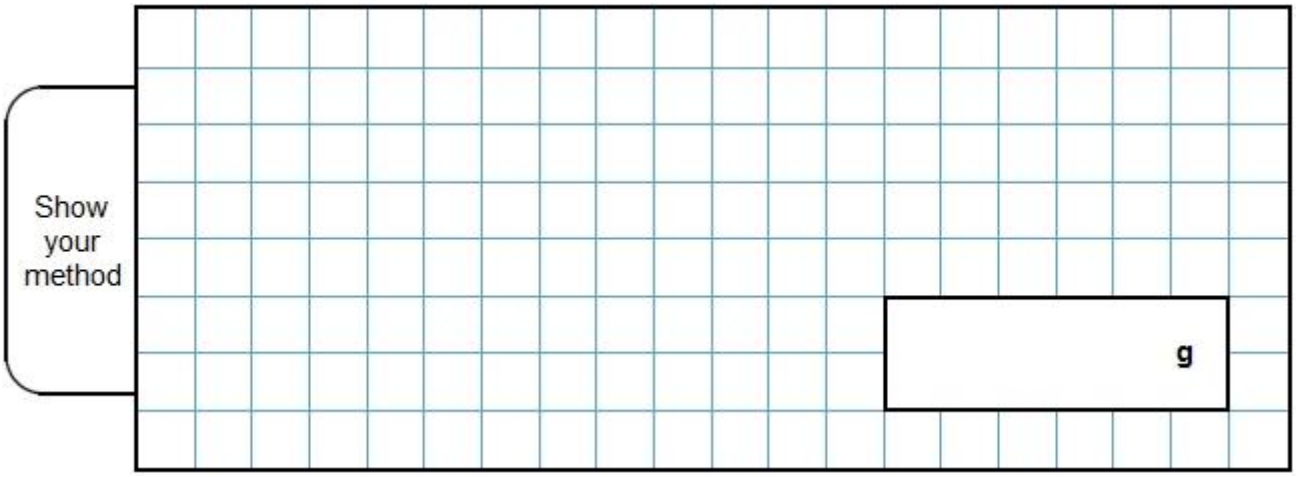
Q15.

Chen and Megan each have a parcel.

Chen's parcel weighs $1\frac{1}{2}$ kg.

Megan's parcel weighs 1.2 kg

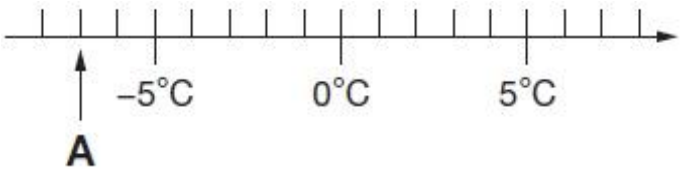
How many more **grams** does Chen's parcel weigh than Megan's parcel?



2 marks

Q16.

Here is part of a temperature scale.



What is the temperature shown at **A**?

°C

1 mark

What temperature is 20 degrees **higher** than **A**?

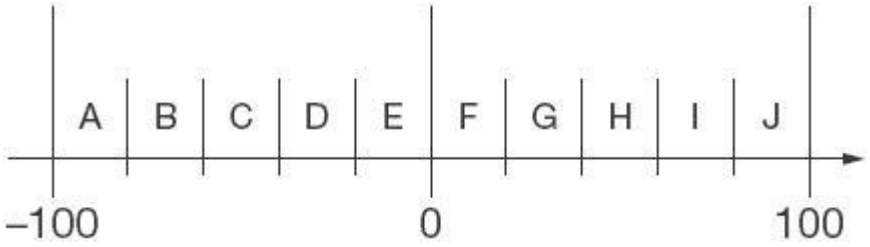
°C

1 mark

Q17.

Here is part of a number line.

It is divided into equal sections.



Write the letter of the section where each of these numbers belongs.

The number 99 has been done for you.

number	section
99	J
29	
–83	
–15	
44	

2 marks

Q18.

Liam has two different sizes of rectangle.

He makes this pattern with them.

Not actual size

Calculate the lengths of **A** and **B**.

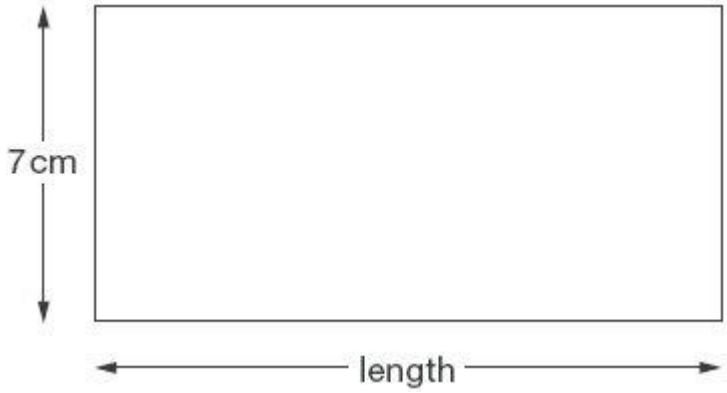
A = cm

1 mark

B = cm

1 mark

Q19.



Not actual size

The perimeter of this rectangle is 50 centimetres.

Calculate the length of the rectangle.

Show your method

cm

2 marks

Q20.

Here are four pairs of measurements.

For each pair, put a ring around the **larger** measurement.

One has been done for you.

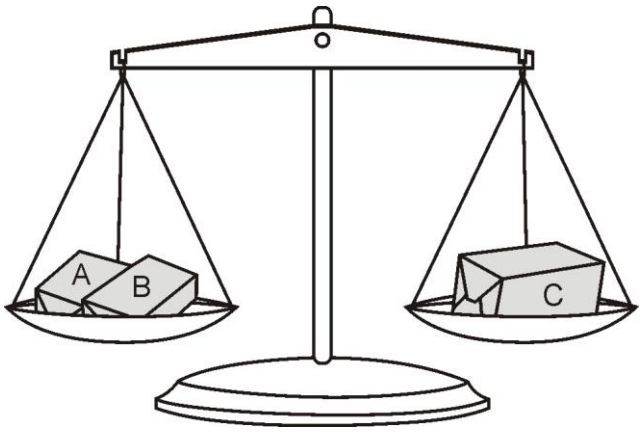
4 centimetres	4 inches
10 kilometres	10 miles
2 litres	2 pints
5 grams	5 pounds

1 mark

Q21.

Amir has three parcels.

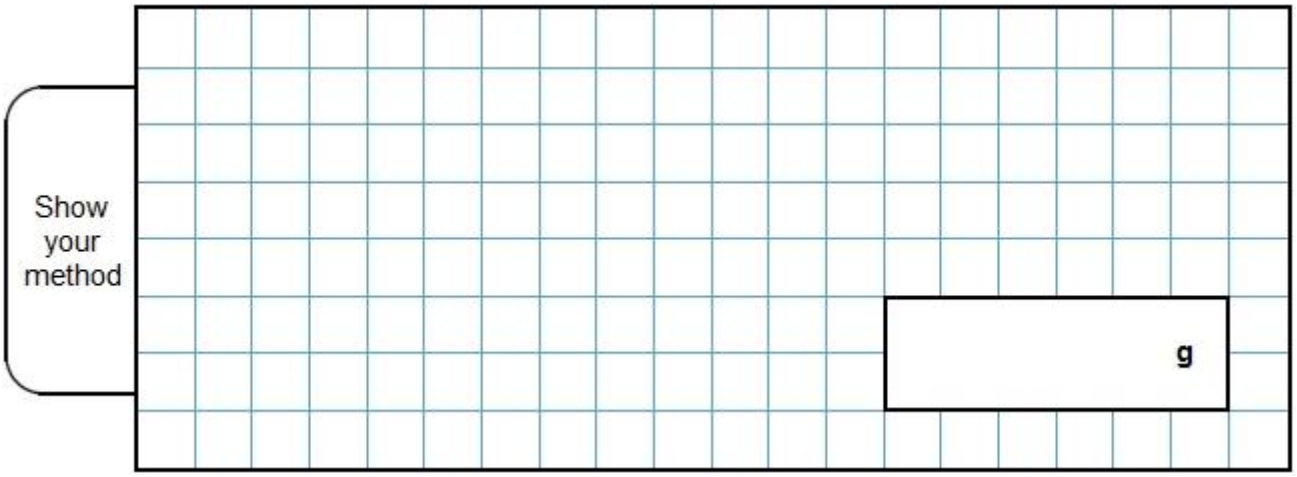
Parcels A and B together weigh the same as parcel C.



The three parcels weigh 800 grams altogether.

Parcel A weighs 250 g.

How much does parcel B weigh?



2 marks

Q22.

This table shows when flights take off at an airport.

Flight number	Destination	Take-off time
AX40	Paris	13:35
BH253	Berlin	14:05
CG008	Rome	15:25
DP369	Paris	15:40
EZ44	Lisbon	16:15
FJ994	Dublin	17:25

How many flights take off between 3pm and 5pm?

1 mark

How much later does the second flight to Paris take off than the first?

1 mark

The flight to Dublin takes 50 minutes.

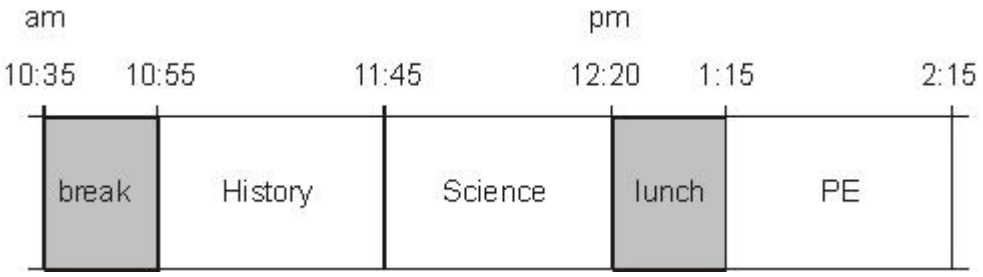
What time does it arrive in Dublin?

:

1 mark

Q23.

Here is part of the timetable for Class 6 on a Monday.



Look at the timetable.

How long is it from the **end** of break to the **start** of lunch?

1 mark

Nisha leaves the Science lesson after 25 minutes.

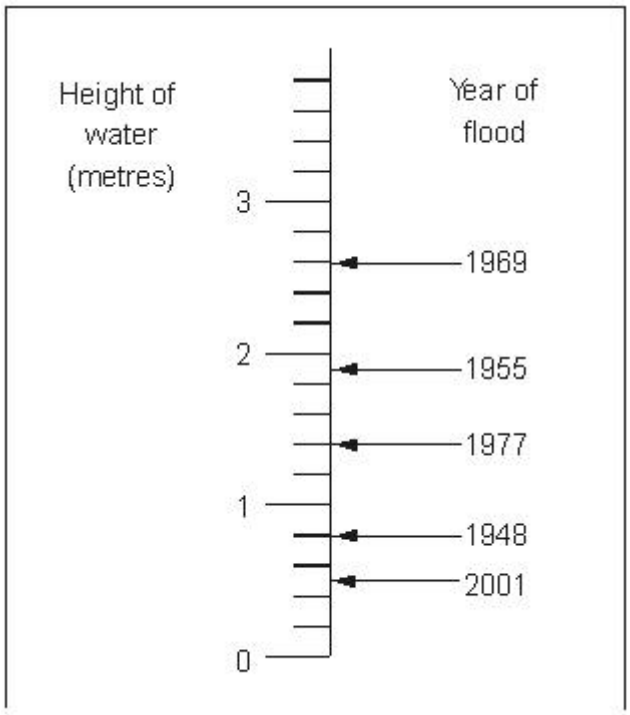
Then she goes to the dentist.

What time does she leave the Science lesson?

1 mark

Q24.

This scale shows the dates of floods and the height of the water in the floods.



How high was the water in the 1955 flood?

m

1 mark

How much higher was the water in the 1969 flood than in the 1948 flood?

m

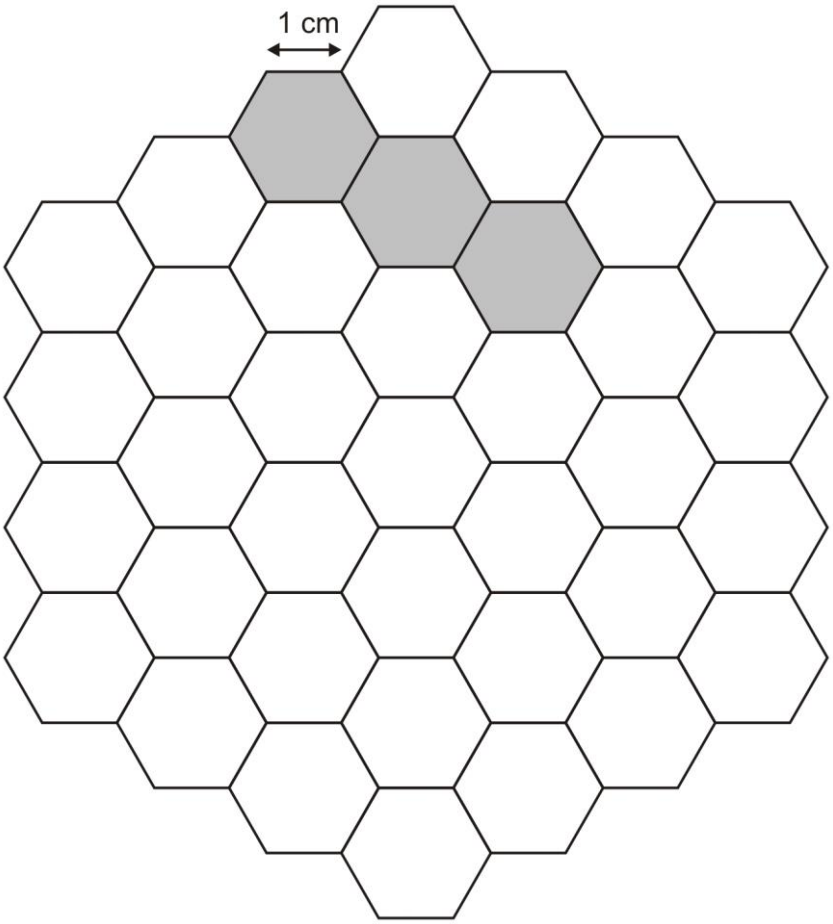
1 mark

Q25.

Here is a grid of regular hexagons.

The shaded shape has an area of 3 hexagons and a perimeter of 14 cm.

Draw another shape on the grid which has an **area** of 4 hexagons and a **perimeter** of 14 cm.



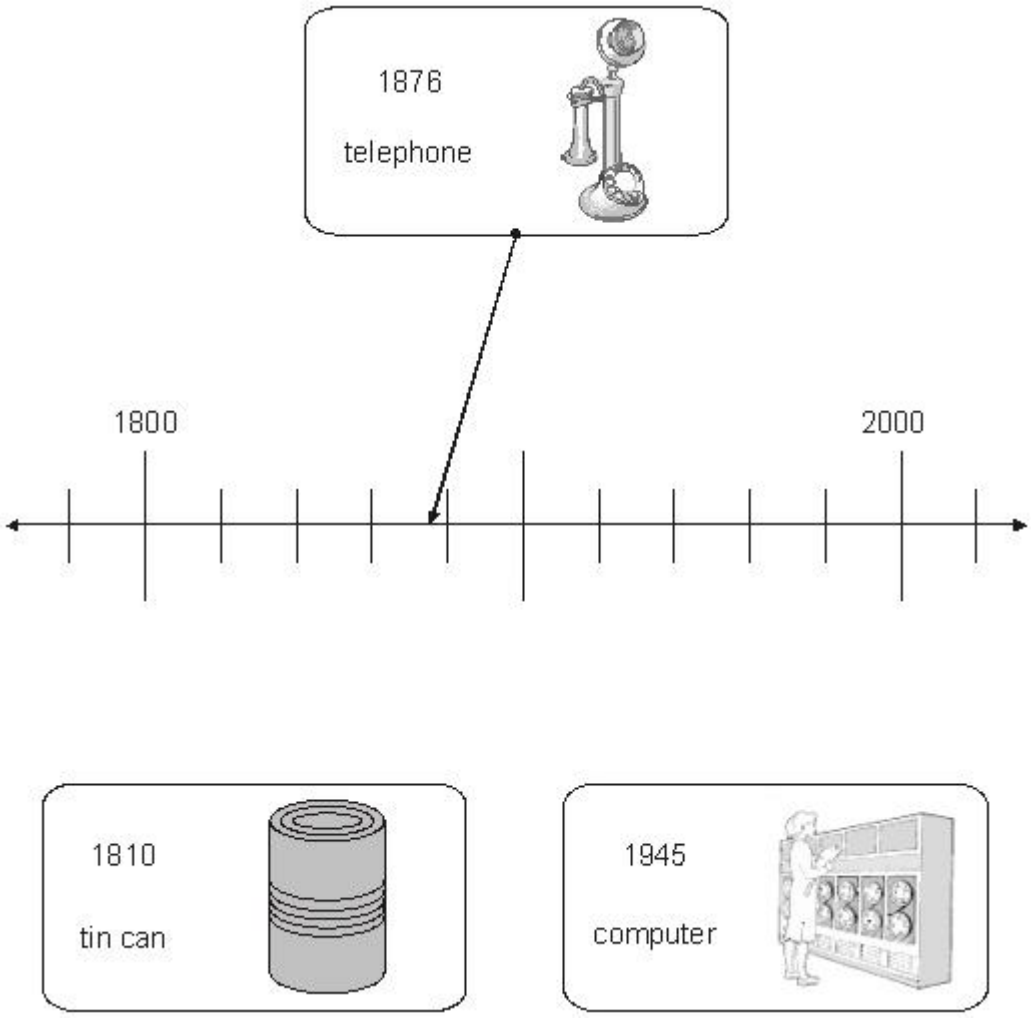
1 mark

Q26.

Here is part of a time line.

Draw a line from each invention to the correct point on the time line.

One has been done for you.

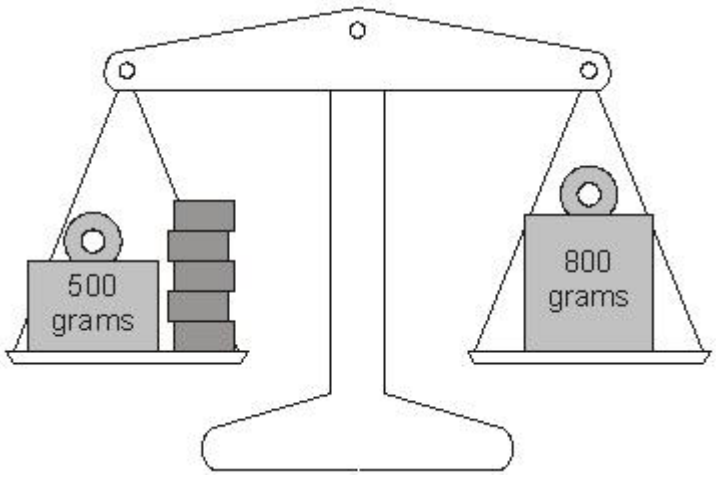


2 marks

Q27.

Lin has five blocks which are all the same.

She balances them on the scale with two weights.



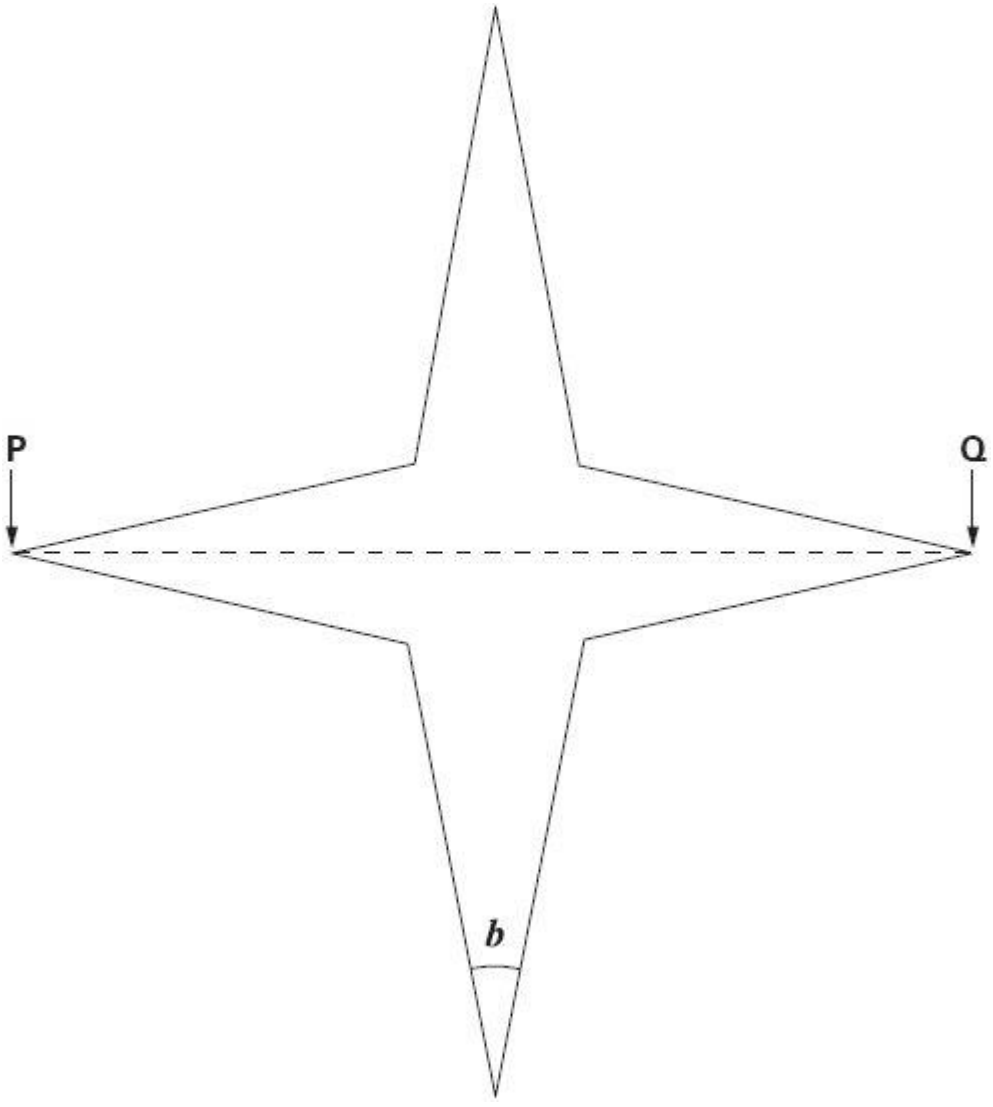
Calculate the weight of **one** block.

Show your method

2 marks

Q28.

Look at this star.



Use a ruler to measure **accurately** the **width** of the star, from **P** to **Q**.

Give your answer in **millimetres**.

mm

1 mark

Use a protractor (angle measurer) to measure **angle** b.

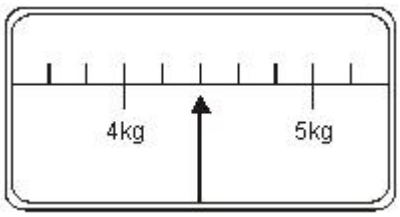
°

1 mark

Q29.

This scale shows the weight of Fred's cat.

Fred's cat



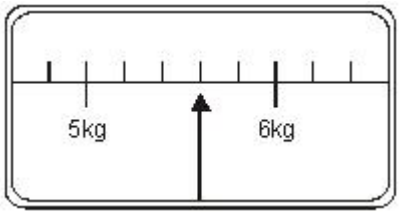
What is the weight of Fred's cat?

kg

1 mark

This scale shows the weight of Fred's dog

Fred's dog



How much **more** does Fred's dog weigh than his cat?

kg

1 mark

Q30.

Some children ran in two races on sports day.

Here are their times.

	100 m race	800 m race
Elise	15.9 seconds	3 minutes 02 seconds
Jake	19.7 seconds	2 minutes 58 seconds
Teri	16.8 seconds	3 minutes 01 seconds
Neil	17.1 seconds	2 minutes 59 seconds
Barry	18.4 seconds	2 minutes 57 seconds

Who finished the 100 m race in **second** place?

1 mark

In the 800 m race, how many seconds did Barry finish ahead of Elise?

seconds

1 mark

Q31.

An isosceles triangle has a perimeter of 12 cm.

One of its sides is 5 cm.

What could the length of each of the other two sides be?

Two different answers are possible.

Give **both** answers.

cm and cm

cm and cm

2 marks

Q32.

Here are the **start** and **finish** times of some children doing a sponsored walk.

	Start time	Finish time
Claire	9.30	10.55
Ruth	9.35	11.05
Dan	9.40	11.08
Tim	9.45	11.05

How much longer did Claire take than Tim?

minutes

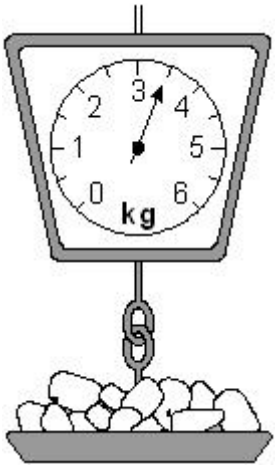
1 mark

Q33.

This table shows the weight of some fruits and vegetables.

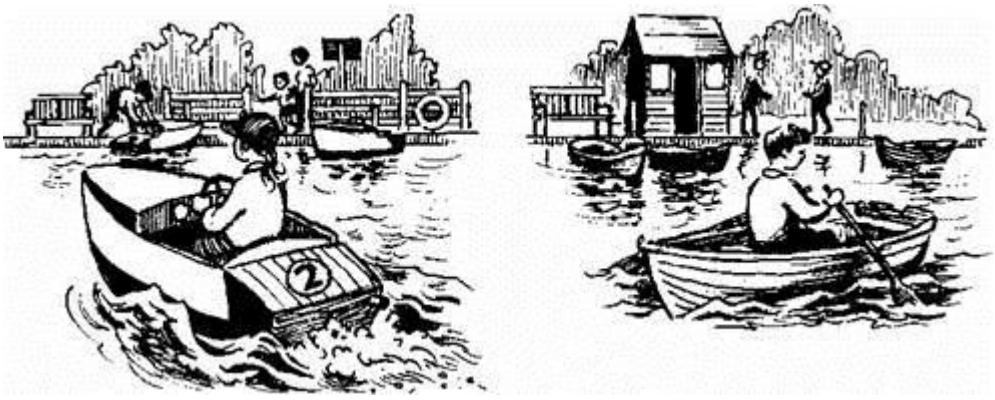
Complete the table.

	grams	**kilograms**
potatoes	3500	3.5
apples		1.2
grapes	3500	
ginger		0.03



2 marks

Q34.



Boat Hire	
Motor boats	**Rowing boats**
£1.50 for 15 minutes	£2.50 for 1 hour

How much does it cost to hire a **rowing boat** for three hours?

£

1 mark

Sasha pays **£3.00** to hire a **motor boat**.

She goes out at **3:20pm**.

By what time must she **return**?

pm

1 mark

Q35.

One of these watches is **3 minutes fast.**

The other watch is **4 minutes slow.**

What is the correct time?

1 mark

Q1.

(a) 7

Do not *accept −7 or 7−*

1

(b) Oslo

Accept unambiguous abbreviations or recognisable misspellings.

1

[2]

Q2.

Award **TWO** marks for the correct answer of 40

If the answer is incorrect, award **ONE** mark for evidence of appropriate method, e.g.

- 2.6 × 1,000 = 2,600
  2,600 ÷ 65 =
- 2.6 ÷ 0.065 =

Answer need not be obtained for the award of ***ONE*** *mark.*

Do not *accept an incorrect conversion or no conversion of units, e.g.*

- *260 ÷ 65 =*
- *2.6 kg ÷ 65 g*

Up to 2m

[2]

Q3.

Award **TWO** marks for the correct answer of 101

If the answer is incorrect, award **ONE** mark for:

- sight of 44

OR

- evidence of appropriate method, e.g.
  - 31 − 20 = 11
    11 × 4 + 57 =

Answer need not be obtained for the award of ***ONE*** *mark.*

Up to 2 marks

[2]

Q4.

(a) 140

The answer is a time interval

1

(b) 2

1

[2]

Q5.

The correct time circled as shown:

Leaves London	Arrives Paris
12:01	15:22
12:25	15:56
13:31	16:53
14:01	17:26
14:31	17:53
15:31	18:53
16:01	19:20

Accept alternative unambiguous positive indications, e.g. 14:01 ticked or underlined.

Accept 17:26 circled in addition to 14:01, provided no other time is circled.

***Do not** accept only the arrival time 17:26 circled.*

[1]

Q6.

Award **TWO** marks for the correct answer of 30.

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- 1.5 kg = 1,500 g
  1,500 ÷ 50

*Answer need not be obtained for the award of **ONE** mark.*

*Units must be converted correctly for the award of **ONE** mark.*

Up to 2m

[2]

Q7.

Award **TWO** marks for the correct answer of 119.

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- 140 ÷ 20 = 7
  3 × 7 = 21
  140 – 21

OR

- 140 ÷ 20 = 7
  20 – 3 = 17
  17 × 7

*Answer need not be obtained for the award of **ONE** mark.*

Up to 2m

[2]

Q8.

Award **TWO** marks for the correct answer of 77°F.

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- 86 – 68 = 18
  18 ÷ 2 = 19
  9 + 68

OR

- 86 – 68 = 18
  18 ÷ 2 = 9
  86 – 9

OR

- 86 + 68 = 154
  154 ÷ 2

*Answer need not be obtained for the award of **ONE** mark.*

Up to 2m

[2]

Q9.

(a) 9

***Do not** accept –9 or 9–*

1

(b) –6

***Do not** accept 6–*

1

[2]

Q10.

(a) 46

The answer is a time interval.

1

(b) 10:44

The answer is a specific time.

1

[2]

Q11.

Award **TWO** marks for the correct answer of £16,470

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g:

- £32.94 × 1000 = £32,940
  £32,940 ÷ 2

OR

- £32.94 × 500
  = £3294 × 5

*Answer need not be obtained for the award of **ONE** mark.*

Up to 2

[2]

Q12.

A rectangle with area 6 cm^2

A rectangle must be drawn but need not be shaded.

[1]

Q13.

(a) 38

The answer is a time interval.

1

(b) 10:21

The answer is a specific time.

1

(c) 10:58

1

[3]

Q14.

Award **TWO** marks for the correct answer of 42

If the answer is incorrect award **ONE** mark for evidence of appropriate working, eg:

■ 28 ÷ 4 = 7

7 × 6 = wrong answer

OR

■ 28 ÷ 2 = 14

14 + 28 = wrong answer

*Working must be carried through to reach an answer for the award of **ONE** mark.*

Up to 2m

[2]

Q15.

Award **TWO** marks for the correct answer of 300

If the answer is incorrect, award **ONE** mark for evidence of appropriate working, eg

$1\frac{1}{2}$ kg = 1500 g

1.2 kg = 1200 g

1500 g – 1200 g = wrong answer

*Answer must be in grams for the award of **TWO** marks.*

***Do not** accept 0.3 kg.*

*Working must be carried through to reach an answer for the award of **ONE** mark.*

Up to 2

[2]

Q16.

(a) −7°C

***Do not** accept 7−*

1

(b) 13°C

*If (a) is negative allow follow through in part (b) for **ONE** mark.*

1

[2]

Q17.

Award **TWO** marks for all four letters in the correct order as shown:

99 *J*

29 **G**

–83 **A**

–15 **E**

44 **H**

If the answer is incorrect, award **ONE** mark for three letters correct.

Up to 2

[2]

Q18.

(a) 5

1

(b) 15

If the answer is incorrect, award the mark if the answers to (a) and (b) total 20

U1

[2]

Q19.

Award **TWO** marks for the correct answer of 18

If the answer is incorrect, award **ONE** mark for evidence of appropriate working, eg

50 ÷ 2 = 25

25 – 7 = wrong answer

OR

7 × 2 = 14

50 – 14 = 36

36 ÷ 2 = wrong answer

*Working must be carried through to reach an answer for the award of **ONE** mark.*

Up to 2

[2]

Q20.

Measurements circled as shown:

4 centimetres	4 inches
10 kilometres	**10 miles**
2 litres	2 pints
5 grams	**5 pounds**

Accept alternative unambiguous indications, eg measurements ticked, crossed or underlined.

[1]

Q21.

Award **TWO** marks for the correct answer of 150

If the answer is incorrect, award **ONE** mark for evidence of appropriate working, eg
800 ÷ 2 = 400
400 – 250 = wrong answer

*Working must be carried through to reach an answer for the award of **ONE** mark.*

Up to 2 (U1)

[2]

Q22.

(a) 3

1

(b) 2 hours 5 minutes

The answer is a time interval

1

(c) 18:15

The answer is a specific time

Accept 6:15

1

[3]

Q23.

(a) 1 hour 25 minutes

The answer is a time interval

1

(b) 12:10pm

The answer is a specific time

1

[2]

Q24.

(a) Answer in the range 1.85 to 1.95 exclusive.

1

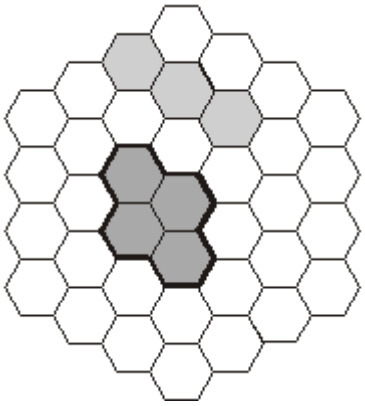
(b) 1.8

1

[2]

Q25.

Shape drawn on grid as shown:



Accept: shape in any position or orientation.

Accept: slight inaccuracies in drawing provided the intention is clear.

Accept: alternative unambiguous indications of the correct shape provided the intention is clear.

Accept: mathematically correct answers involving fractions of a hexagon.

Shape need not be shaded.

[1]

Q26.

(a) Answer for tin can joined to the time line in the range 1805 to 1815 exclusive.

1

(b) Answer for computer joined to the time line in the range 1940 to 1950 exclusive.

1

[2]

Q27.

Award **TWO** marks for the correct answer of 60

If the answer is incorrect, award **ONE** mark for evidence of appropriate method, eg

800 – 500 = 300

300 ÷ 5

*Answer need not be obtained for the award of **ONE** mark.*

Up to 2 (U1)

[2]

Q28.

(a) Answer is teacher's measurement +/- 2 mm.

1

(b) Answer in the range 21 degrees to 23 degrees inclusive.

1

[2]

Q29.

(a) 4.4

1

(b) 1.2

OR

for finding the correct difference between 5.6 and the answer given for part (a)

1

[2]

Q30.

(a) Teri

Accept recognisable misspellings.
***Do not** accept 16.8*

1

(b) 5

1

[2]

Q31.

Award **TWO** marks for two different answers as shown:

5	and	2	**or**	2	and	5

AND

3.5	and	3.5

If the answer is incorrect, award **ONE** mark for any one of the above answers.

The two answers may be given in either order.
***Do not** accept '5 and 2' **AND** '2 and 5' for two marks.*

Up to 2

[2]

Q32.

5

[1]

Q33.

Award **TWO** marks for the table completed as shown:

grams	kilograms
3500	3.5
1200	1.2
250	**0.25**
30	0.03

If the answer is incorrect, award **ONE** mark for two of the three numbers completed correctly.

For 0.25, accept .25 ***OR*** $\frac{1}{4}$

Up to 2

[2]

Q34.

(a) £7.50

Accept £7.50p ***OR*** *£7 50*
Do not *accept £7.5* ***OR*** *£750p* ***OR*** *£750*

1

(b) 3:50 pm

Accept '10 to 4' or equivalent.
Accept 15:50 ***OR*** *350* ***OR*** *1550*

1

[2]

Q35.

12:02

Accept 1202 ***OR*** *12.02* ***OR*** *00:02* ***OR*** *0002* ***OR*** *00.02*
Accept 'two minutes past twelve' or equivalent.
Ignore am or pm.

[1]