testbase

Week 17

Mass

Name: _____

Class: _____

Date: _____

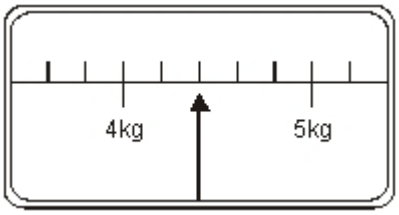
Time: **37 minutes**

Marks: **38 marks**

Comments:

1 This scale shows the weight of Fred's cat.

Fred's cat



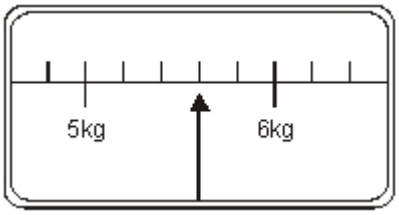
What is the weight of Fred's cat?

kg

1 mark

This scale shows the weight of Fred's dog

Fred's dog

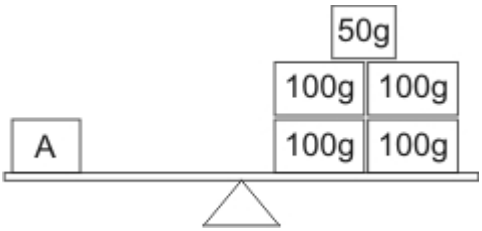


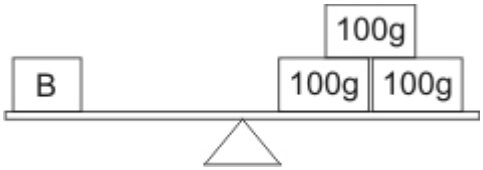
How much **more** does Fred's dog weigh than his cat?

kg

1 mark

2 How much heavier is parcel **A** than parcel **B**?





g

1 mark

3 **Baby**

(a) About how much does a **new-born baby** weigh?

Tick (✓) the correct answer.

- ☐ 0.3 kg
- ☐ 3 kg
- ☐ 30 kg
- ☐ 300 kg

1 mark

(b) About how much milk does a **baby's bottle** hold?

Tick (✓) the correct answer.

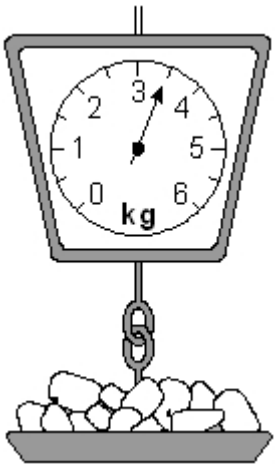
- ☐ 3 millilitres
- ☐ 300 millilitres
- ☐ 3 litres
- ☐ 300 litres

1 mark

4 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

5 Robin has bought this packet of biscuits.

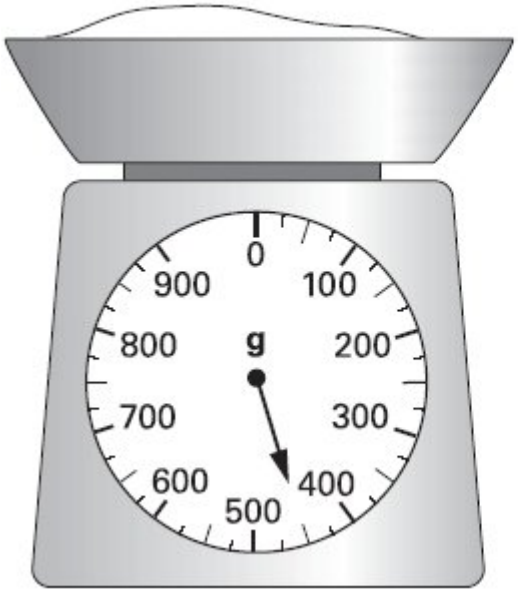
Tick (✓) the amount the biscuits are most likely to weigh.

10kg	☐
250kg	☐
5g	☐
250g	☐
100g	☐
5kg	☐

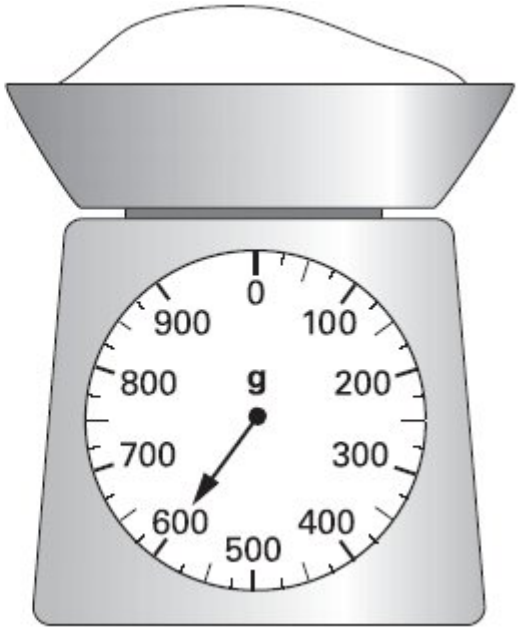
1 mark

6 Emily is making a cake.

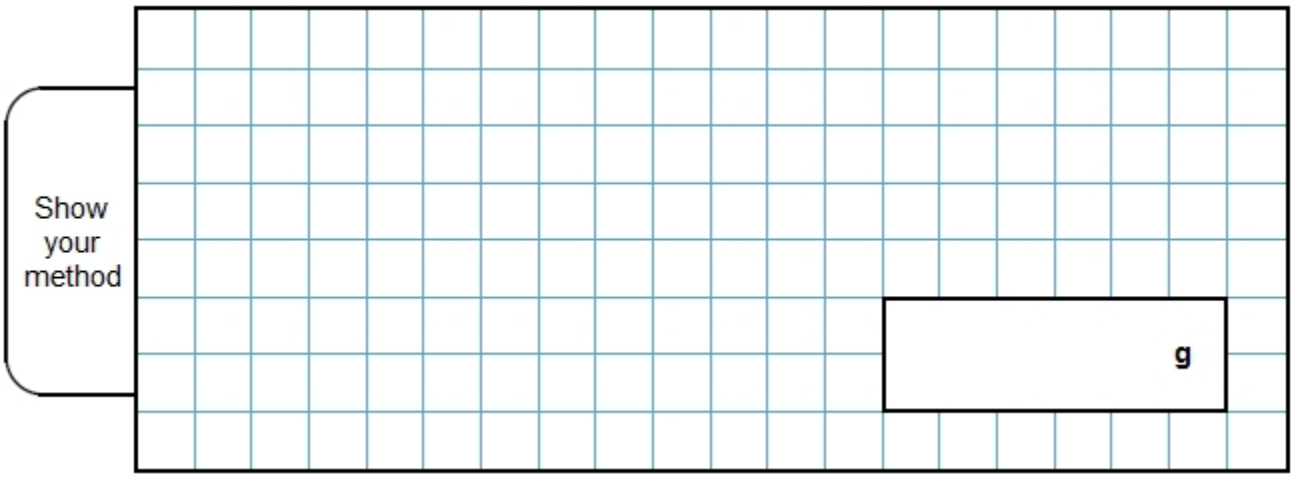
She puts flour on the scales.



She then adds sugar to the flour.

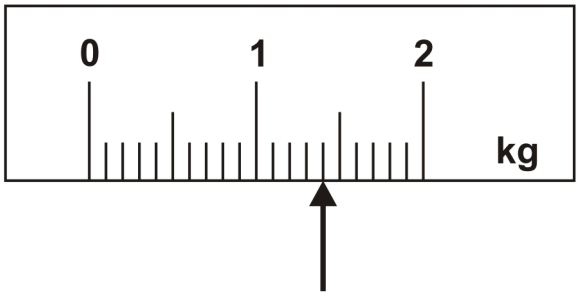


How much sugar does she add?



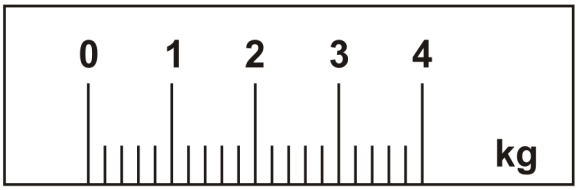
2 marks

7 On this scale, the arrow (↑) shows the weight of this pineapple.



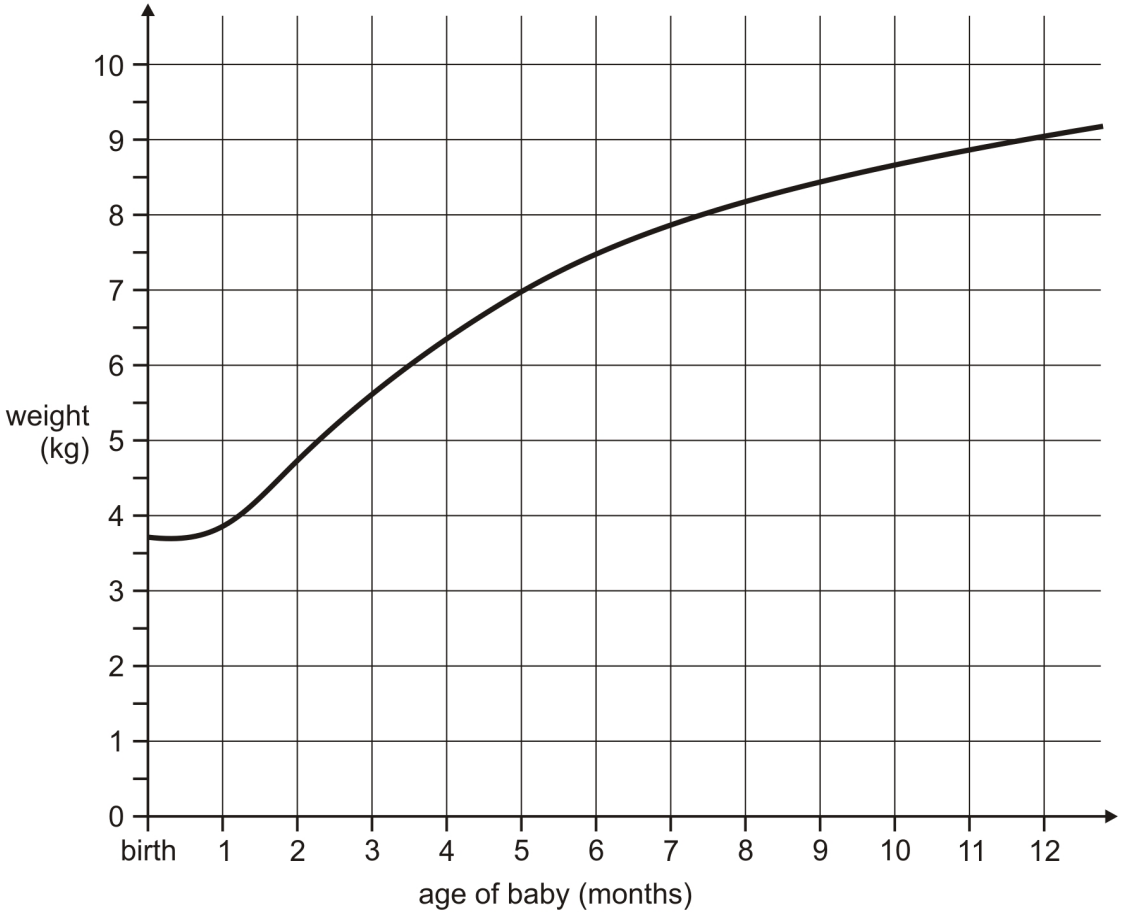
Here is a **different** scale.

Mark with an arrow (↑) the weight of the **same** pineapple.



1 mark

8 This graph shows how the weight of a baby changed over twelve months.



From the graph, what was the weight of the baby at **10 months?**

kg

1 mark

How much **more** did the baby weigh at 5 months than at birth?

kg

1 mark

9 Circle one amount each time to make these sentences correct.

One has been done for you.

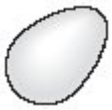
The distance from
London to Manchester is about

320 cm
320 m
320 km

A tea cup is likely to hold about

15 ml
150 ml
1500 ml

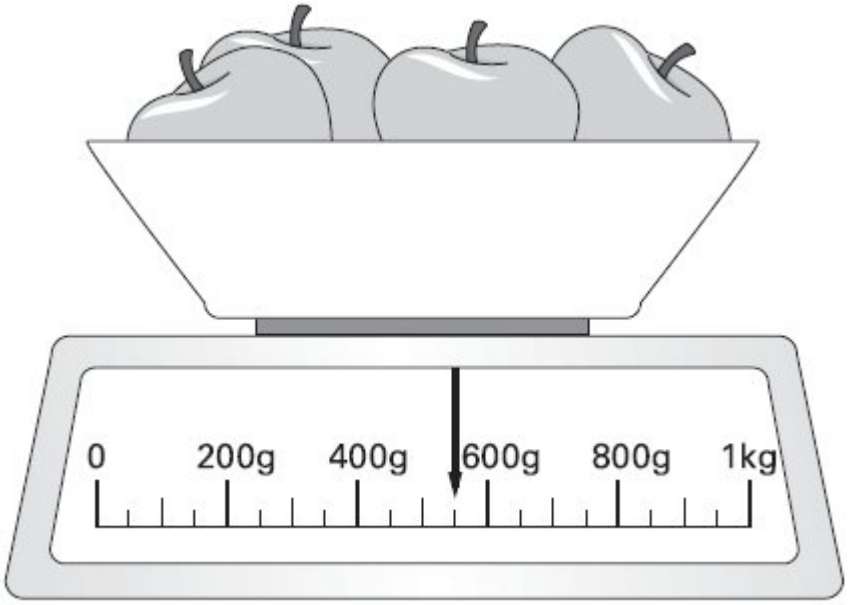
A hen's egg is likely to weigh about



6 g
60 g
600 g

1 mark

10 Here are some apples.



What is the total weight of these apples?

g

1 mark

11 This scale shows how much Mrs Patel weighs.

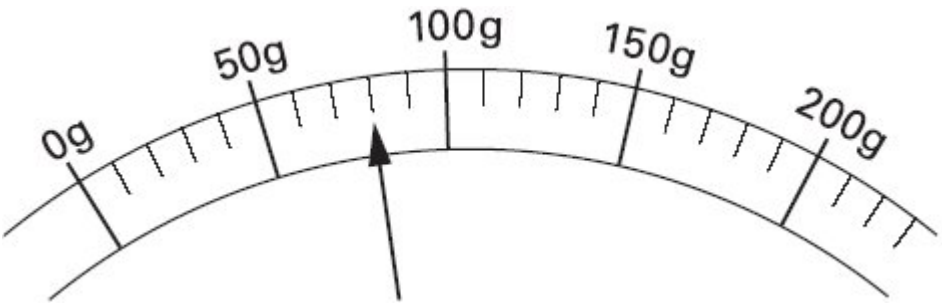
How much does Mrs Patel weigh?

kg

1 mark

12

Here is a scale which shows the weight of a letter.



How much does the letter weigh?

g

1 mark

13 A packet contains **1.5 kilograms** of guinea pig food.

Remi feeds her guinea pig **30 grams** of food each day.

How many days does the packet of food last?

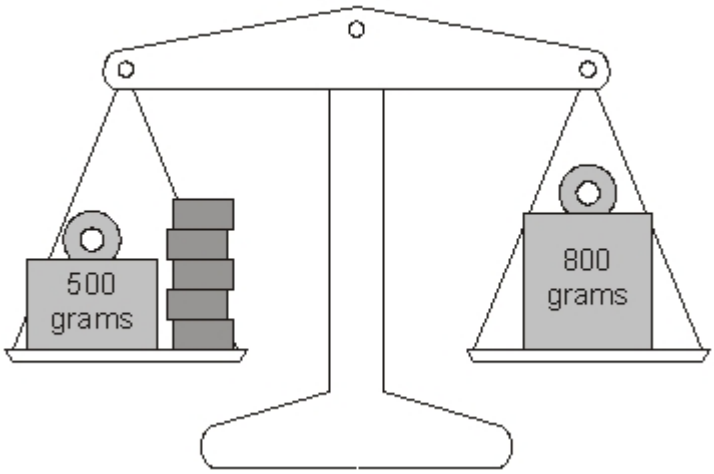
Show your method

days

2 marks

14 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

15

Every **100 g** of brown bread contains **6 g** of fibre.

A loaf of bread weighs 800 g and has 20 equal slices.

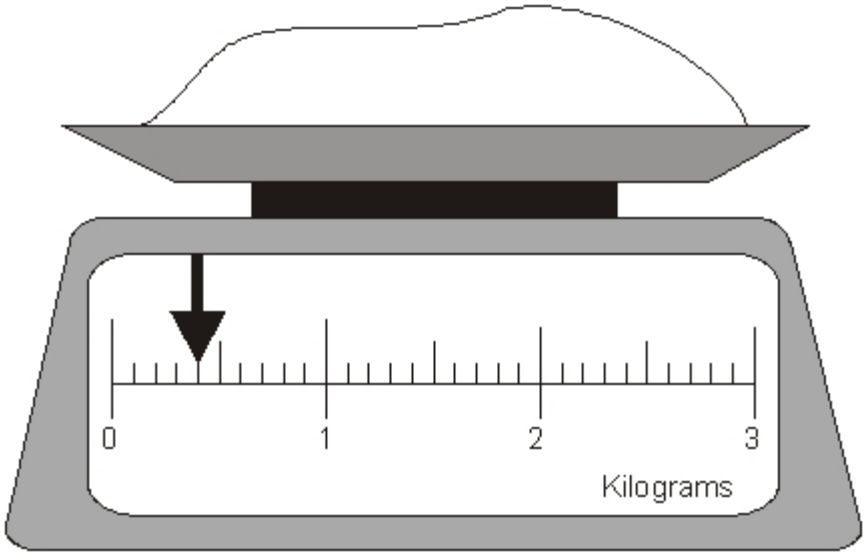
How much fibre is there in **one** slice?

Show your method

g

2 marks

16 Here is some flour on a weighing scale.



How many **grams** of flour are on the scale?

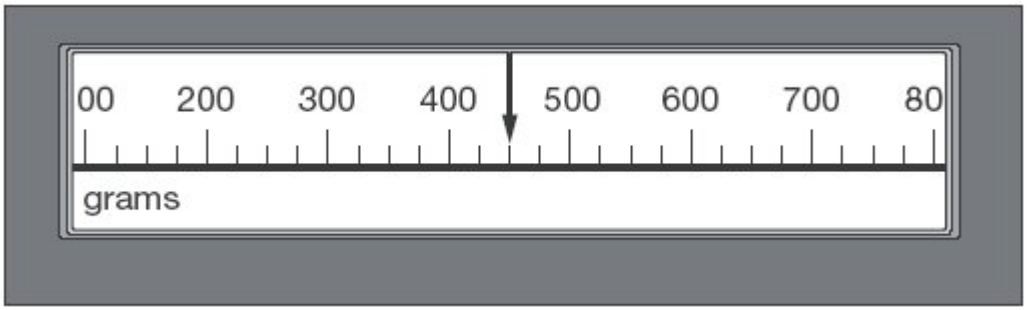
g

1 mark

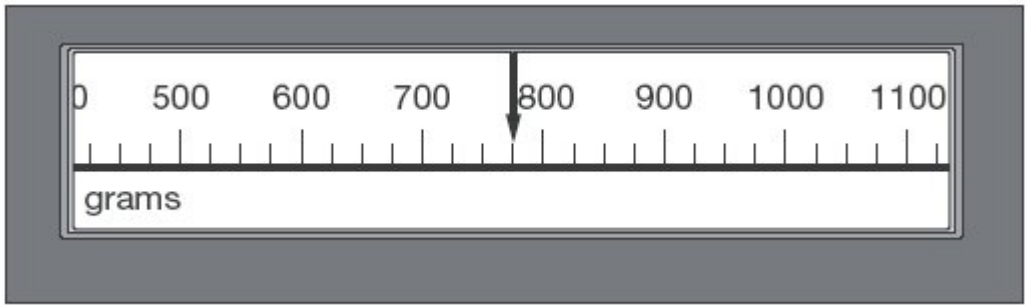
How much more flour must be added to the scale to make 1.6 kg?

1 mark

17 This scale shows the mass of Amy's kitten when it was one month old.



This scale shows the mass of the kitten when it was two months old.



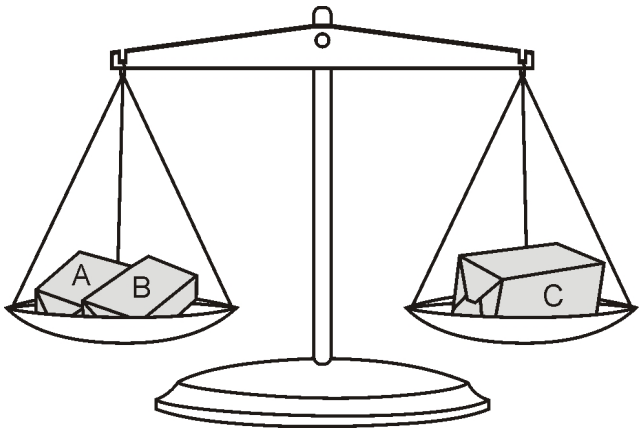
What is the increase in mass?

g

1 mark

18 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 250g.

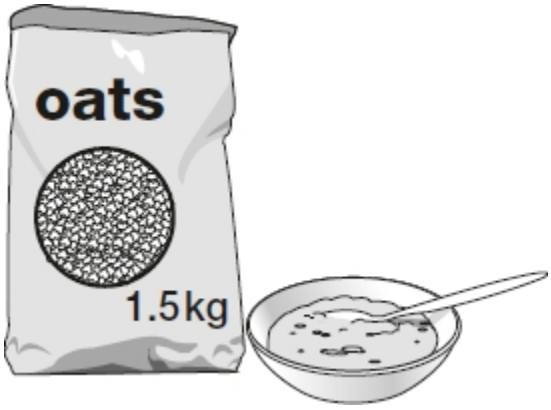
How much does parcel B weigh?

Show your method

g

2 marks

19 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

20 Here are four masses.

2 kilograms	1 tonne	800 grams	$\frac{1}{2}$ kilogram

Write the masses in order, starting with the lightest.

lightest			

1 mark

21 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?

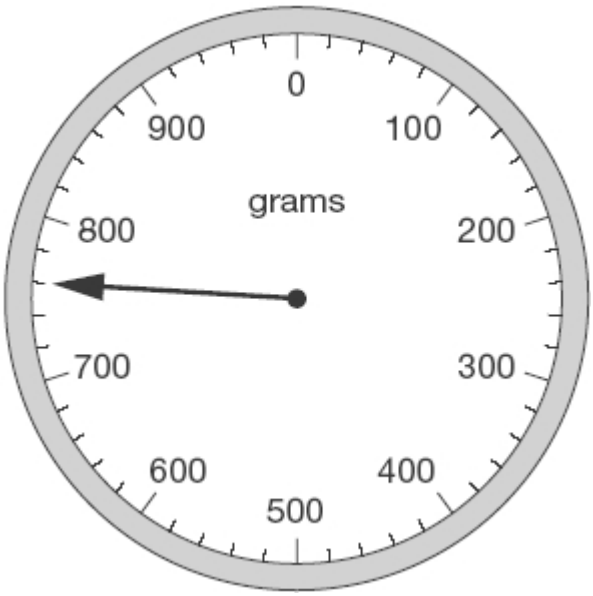
Show your method

g

2 marks

22 Joe places some apples on a weighing scale.

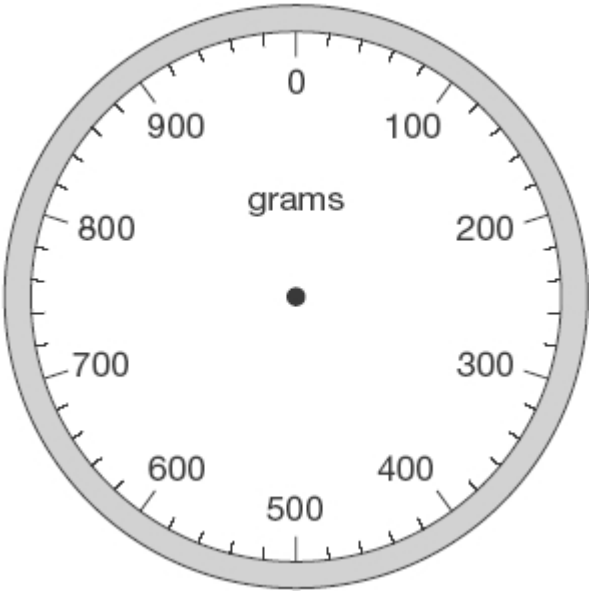
The pointer shows the mass of the apples.



He takes away one apple.

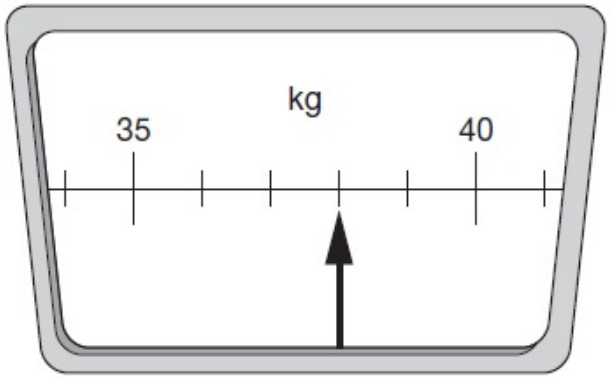
The mass goes down by 120 grams.

Draw the pointer in its new position on the scale below.



1 mark

23 This scale shows how much Chen weighs.



How much does Chen weigh?

kg

1 mark

24

Miss Mills is making jam to sell at the school fair.

Strawberries cost £7.50 per kg.

Sugar costs 79p per kg.

10 glass jars cost £6.90

She uses 12 kg of strawberries and 10 kg of sugar to make 20 jars full of jam.

Calculate the total cost to make 20 jars full of jam.

Show your method

£

3 marks

1 (a) 4.4 **1**

(b) 1.2

OR

for finding the correct difference between 5.6 and the answer given for 15a **1**

[2]

2 150 g **[1]**

3 (a) Indicates only 3kg, ie

☐

☑

☐

☐ **1**

(b) Indicates only 300 millilitres, ie

☐

☑

☐

☐ **1**

[2]

4 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]

5 ✓ in box by 250 g

If more than one box is ticked, do not award the mark unless the child clearly indicates which one is his or her final correct choice.

[1]

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

Accept 0.15 kg or equivalent.

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method that involves reading both scales correctly **AND** identifies the correct operation needed, eg

600 – 450 =

OR

450 + 50 + 50 + 50 = 600

A final answer need not be written for the award of the method mark.

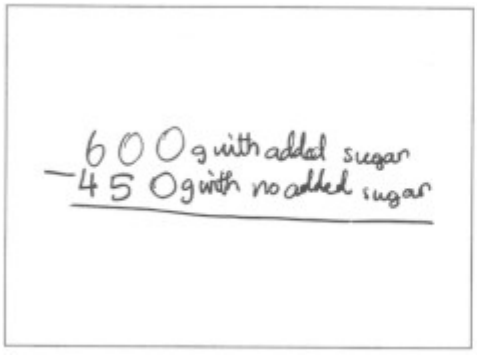
Up to 2

[2]

Examples of responses

Craig has shown evidence that he has read both scales correctly and identified the correct operation to calculate the answer. Although he has not written a final answer, this is not required for the award of the mark. Craig can therefore be awarded the mark. Jane has also read the scales correctly but it is not clear from what she has written how she got to an answer of 250. Since she has not identified the correct operation, Jane cannot be awarded the mark.

Craig



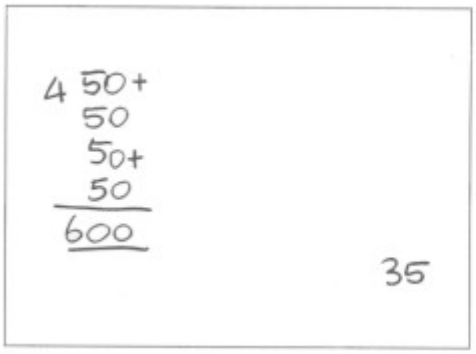
1 mark

Jane

0 marks

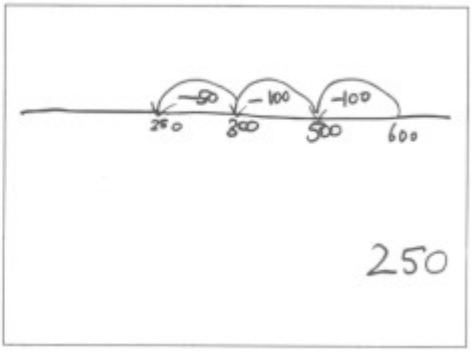
From her working, we can see that Emma has read both scales correctly. She has counted on in steps of 50 from 450 until she reached 600. Since she has read both scales correctly and identified the correct operation to find the answer, her method is appropriate, even though the answer she recorded was incorrect. Emma can be awarded the mark. Adio has used a counting back method on a self-drawn number line, but there is no evidence in his working out that he has read both scales correctly. Adio's method is not correct. Therefore, he cannot be awarded the mark.

Emma



1 mark

Adio



0 marks

Although the answer to her calculation is incorrect, Jo has shown evidence that she has read the scales accurately and identified the correct operation. Jo's method is, therefore, correct and she can be awarded the mark. Nick has also shown evidence that he has read the scales correctly, but has identified an incorrect operation by adding rather than subtracting the amounts on the two scales. Nick's method is not correct and he cannot be awarded the mark.

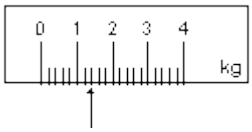
Jo

1 mark

Nick

0 marks

7 Arrow marked on scale as shown:



Accept slight inaccuracies, provided the intention is clear.

Accept alternative unambiguous indications, eg cross on scale.

***Do not** accept the number '1.4' alone.*

[1]

8 (a) Any value in the range 8.6 to 8.8 inclusive.

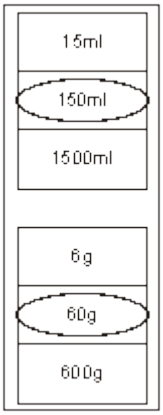
1

(b) Any value in the range 3.2 to 3.4 inclusive.

1

[2]

9 Amounts circled as shown:



Both *amounts must be correct for the award of the mark.*

Accept alternative unambiguous indications such as underlining or ticking.

[1]

10 550

Accept 0.5 kg.

[1]

11 65

[1]

12 80

[1]

13 Award **TWO** marks for the correct answer of 50

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

- 1500 ÷ 30 = wrong answer

Calculation must be performed for the award of** ONE **mark.

***Do not** accept 1.5 ÷ 30 as evidence of appropriate working.*

Up to 2

[2]

14 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]

15 Award **TWO** marks for the correct answer of 2.4

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

6 × 8 = 48 (48 g fibre in one loaf)

48 ÷ 20

OR

800 ÷ 20 = 40 (one slice weighs 40 g)

6% of 40

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

Up to 2

[2]

16 (a) 400

Answer must be in grams.

1

(b) 1200 g **OR** 1.2 kg

OR

for finding the correct difference between 1.6 kg and the answer given for (a).

*Accept 1200 **OR** 1.2 **OR** 1 kg 200 g*

1

[2]

17 325

[1]

18 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]

19 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]

20 Masses in order, as shown:

$\frac{1}{2}$ kg	800 g	2 kg	1 tonne

Accept answers with missing or incorrect units.

[1]

21 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.*

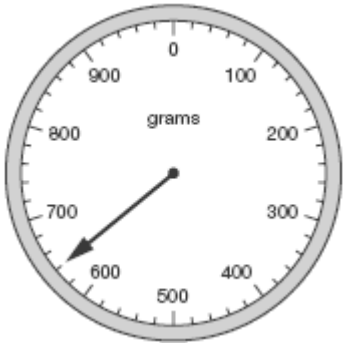
***Do not** accept 0.3 kg.*

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

Up to 2

[2]

22 Arrow drawn to 640, as shown:



Arrow should be closer to 640 than to 620 or 660

Accept any unambiguous indication of the correct point on the scale, including an arrow not originating from the centre of the dial.

Accept answer given on upper diagram provided no answer is given on lower diagram.

[1]

23 38

[1]

24 Award **THREE** marks for the correct answer of £111.70.

If the answer is incorrect, award **TWO** marks for:

- sight of £90 **AND** £7.90 **AND** £13.80 as all multiplication steps completed correctly.

  *Accept for **TWO** marks, sight of 9,000p **AND** 790p **AND** 1,380p as all multiplication steps completed correctly.*

OR

evidence of an appropriate complete method with no more than one arithmetic error, e.g.

$$\begin{array}{r} 7.50 \\ \times\ 12 \\ \hline 88.80 \end{array} \quad \begin{array}{r} 79 \\ \times\ 10 \\ \hline 790 \end{array} \quad \begin{array}{r} 6.90 \\ \times\ 2 \\ \hline 13.80 \end{array}$$

(error)

88.80 + 7.90 + 13.80 = 110.50

Award **ONE** mark for evidence of an appropriate complete method.

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

A misread of a number may affect the award of marks. No marks are awarded if there is more than one misread or if the mathematics is simplified.

***TWO** marks will be awarded if an appropriate complete method with the misread number is followed through correctly.*

***ONE** mark will be awarded for:*

- *all multiplication steps completed correctly with the misread number.*

OR

- *evidence of an appropriate complete method with the misread number followed through correctly with no more than one arithmetic error.*

Up to 3m

[3]