



**KEEP
CALM
AND
IT'S ONLY
SATS**

Name

Inverse Operation Problems

1. Emily chooses two numbers.

She adds the two numbers together and divides the result by 2

Her answer is 44

One of Emily's numbers is 12

What is Emily's other number?



Show
your **method**.
You may get
a mark.

2. Josh thinks of a number.

He adds 4

He multiplies his result by 3

Then he takes away 9

His final answer is 90

What number did Josh start with?



3. Sapna and Robbie have some biscuits.

Altogether they have **14** biscuits.

Sapna has **2 more** biscuits than Robbie.

How many biscuits do Sapna and Robbie each have?



Sapna

Robbie

4. Jemma thinks of a number.



She says,

**'Add 3 to my number and then
multiply the result by 5
The answer is 35'**

What is Jemma's number?



Emily thinks of a number.

He says,

**'Halve my number and then add 17
The answer is 23'**

What is Riaz's number?





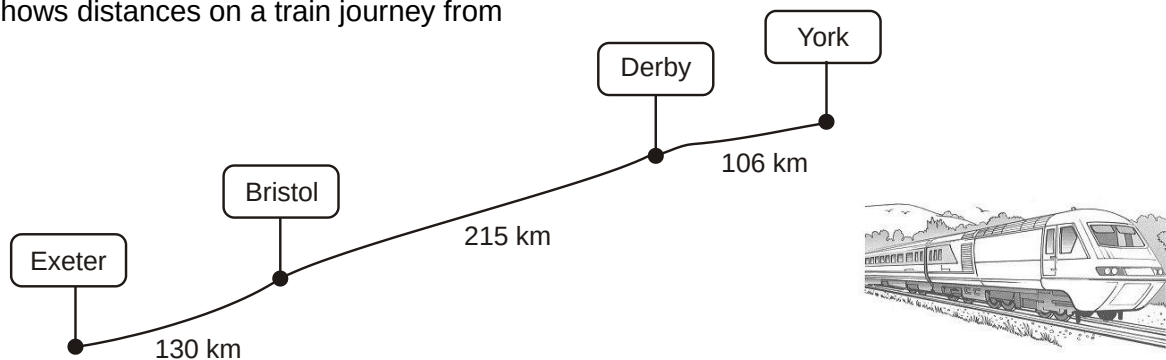
5. n stands for a number.

Complete this table of values.

n	$5n - 2$
20	
	38

Length Problems

1. The diagram shows distances on a train journey from Exeter to York.



How many kilometres is it altogether from **Exeter** to **York**?

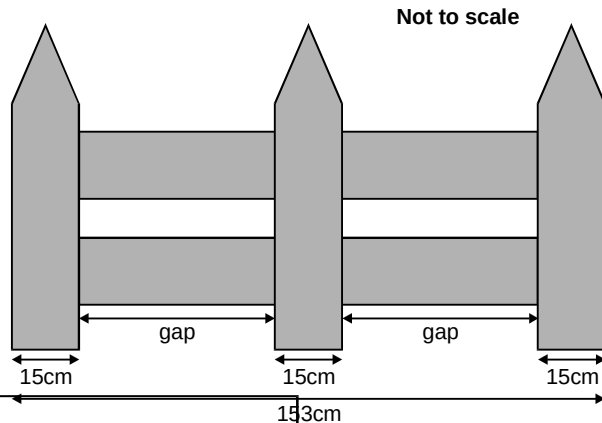

 km

2. This fence has three posts, equally spaced.

Each post is **15 centimetres** wide.

The length of the fence is **153 centimetres**.

Calculate the length of **one gap** between two posts.



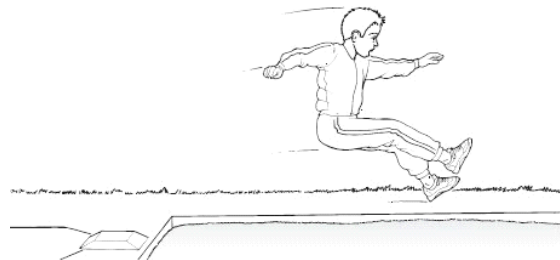
Show your **method**.
You may get a mark.

cm

3. Max jumped **2.25 metres** on his **second** try at the long jump.

This was **75 centimetres** longer than on his **first** try.

How far **in metres** did he jump on his **first** try?



1 mark

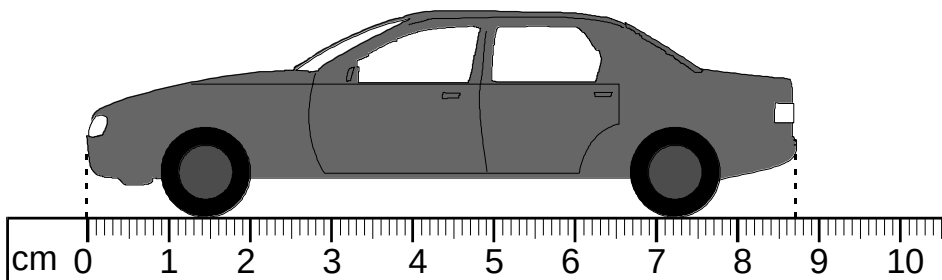
m

4. Here is a drawing of a model car.

What is the **length** of the model?

Give your answer in **centimetres**,

correct to one decimal place.



cm

The height of the model is **2.8 centimetres**.

The height of the real car is **50** times the height of the model.

What is the **height** of the **real car**?

Give your answer in **metres**.

 Show your **method**. You may get a mark.

m

5. Kate has a piece of ribbon **one metre** long.

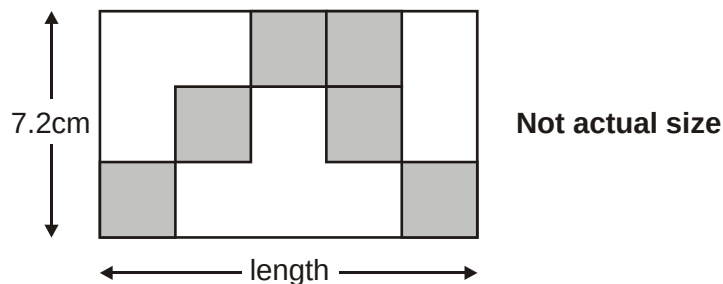
She cuts off 30 centimetres.

How many centimetres of ribbon are left?



 cm

6. Here is a rectangle with six identical shaded squares inside it.



The width of the rectangle is **7.2 centimetres**.

Calculate the **length** of the rectangle.

 Show your **method**. You may get a mark.

cm

7. Write these lengths in order, starting with the shortest.

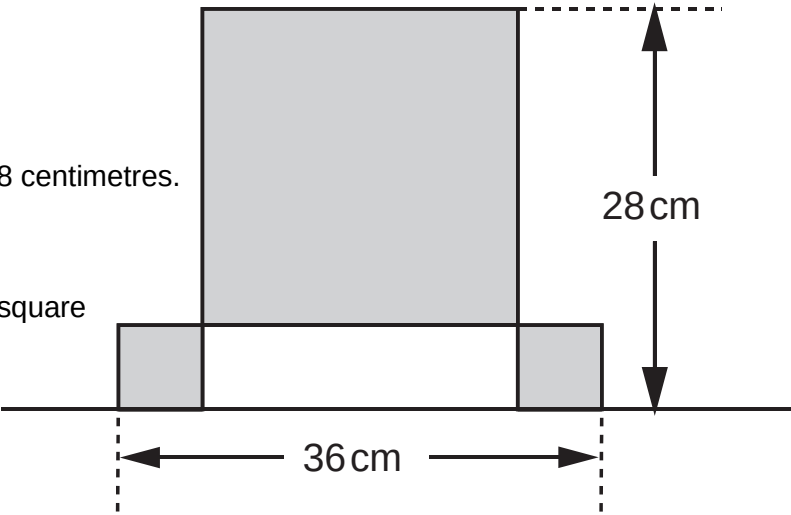
$\frac{1}{2}$ m

3.5cm

8. This design has **one large square** and **two identical small squares**.

The design measures 36 centimetres by 28 centimetres.

Calculate the length of a side of the **large** square



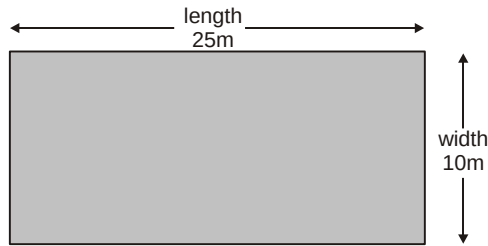
**Not
actual
size**



Show
your **working**.
You may get
a mark.

cm

9. A rectangular swimming pool is 25 metres long and 10 metres wide.



David swims **5 lengths**.

Rosie swims **12 widths**.

How much **further** does David swim than Rosie?

Show
your **working**.
You may get
a mark.

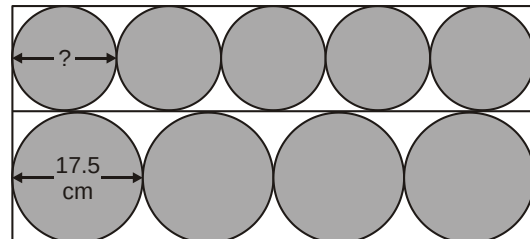
→

metres

10. Four large circles and five small circles fit exactly inside this rectangle.

The **diameter** of a large circle is **17.5** centimetres.

Calculate the **diameter** of a small circle.

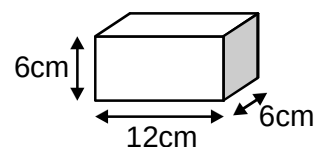


Show
your **method**.
You may get
a mark.

→

cm

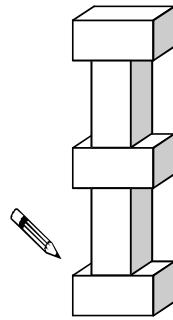
11. Martin has some bricks.



They are 12cm long, 6cm high and 6cm deep.

He builds this tower with **five** bricks.

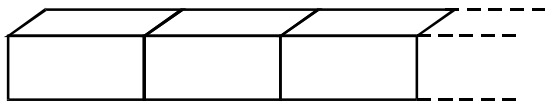
How tall is the tower?


 cm

1 mark

Each brick is 12cm long.

Martin makes a line of bricks **132cm long**.



How many bricks does he use?



1 mark

Money Problems

1. A shop sells food for birds.

Lara has £10 to spend on peanuts

How many bags of peanuts can she get for £10?

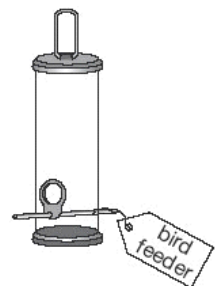
.....



£3.79 for
a bag



£1.35 for
a bag

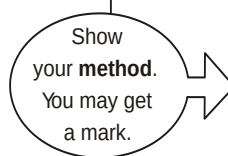


£8.95
each

Amir has £20

He wants to buy a bird-feeder and 4 bags of bird seed.

How much **more** money does he need?


 £

2. Ben buys **three** bottles of milk and **six** cakes.

How much does he spend altogether?

39p

29p



Show
your **method**.
You may get
a mark.

£

3. Emily has £5 to spend on peaches.
She decides to buy only small peaches
or only large peaches.

Small peaches
15p each



Large peaches
25p each



How many **more** small peaches than large peaches can she buy for £5?



Show
your **method**.
You may get
a mark.

4. Chris saves **50p** coins.
He has saved **45** of them.
How much money has Chris saved?



Michelle has saved **£8.40** in **20p** coins.

How many **20p coins** does Michelle have?




 Show your **method**.
 You may get a mark.

5. Here are some amounts of money.

Circle **all** the amounts that can be made with **three** coins.



71p

72p

73p

74p

75p

6. These are the prices in a shoe shop.

How much **more** do the boots cost than the trainers?



£.....



boots
£45.50



sandals
£12.75



trainers
£34.99

Rosie buys a pair of trainers and a pair of sandals.

How much change she gets from **£50**?

Show your **method**.
 You may get a mark.

£

7. These are the prices of coconuts and bananas.



coconuts
78p each



bananas
£1.20 for 1kg

Josh buys **one coconut** and **half a kilogram** of **bananas**.

How much does he spend altogether?

10. These are the prices in a fish and chip shop.

Luke has **£3**

He wants to buy one fish, peas and two large bags of chips.

How much **more** money does he need?

Fish.....£1.95

Chips small bag.....55p

large bag.....70p

Peas.....38p



Show
your **method**.
You may get
a mark.



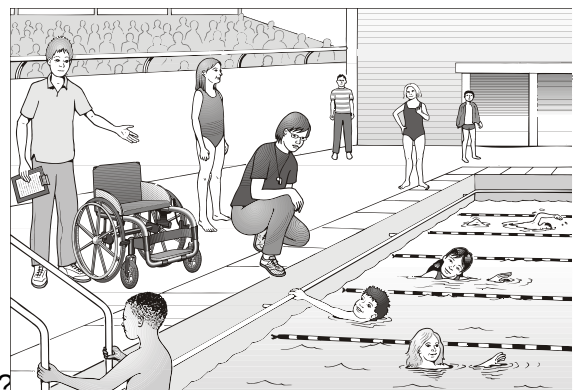
11. Emily, Ben and Nisha take part in a sponsored swim to collect money for charity.

Emily collects £2.75 **more** than Nisha.

Ben collects £15

Nisha collects £7 **less** than Ben.

Altogether how much money do the three children collect?



Show your **method**.
You may get a mark.

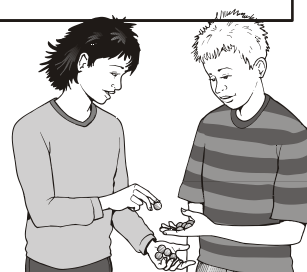
£

12. Kate and Jamie each have some money.

Altogether they have **£1.50**

Kate gives Jamie **10p** so that they both have the same amount.

How much money did each have at the start?



Show your **method**.
You may get a mark.

Kate had p Jamie had p

13. The cost for using a minibus is £1.36 for each kilometre.

8 friends go on a 114 kilometre journey.

They share the cost equally.

How much does each person pay?



Show your **method**.
You may get a mark.

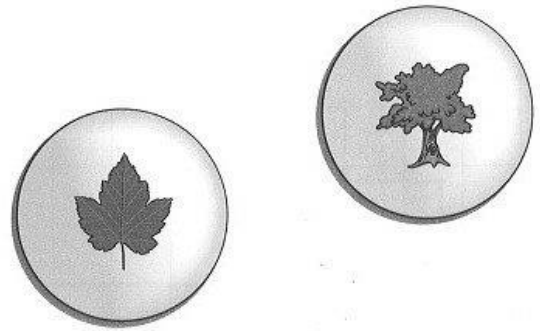
£

14. Forest School sells badges for charity.

For each badge sold, **£1.20** is given to a charity.

How much does the charity get when **12** badges are sold?

 £.....



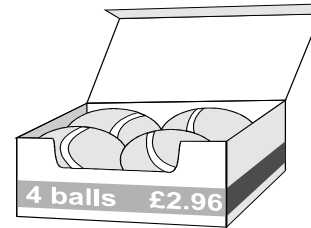
If the charity got **£24**, how many badges were sold?

badges

15. A box of four balls costs **£2.96**

How much does each ball cost?





Dean and Alex buy **3 boxes** of balls between them.

Dean pays **£4.50**

How much must Alex pay?


Show your **method**.
You may get a mark.

£

16. **185** people go to the school concert.

They pay **£1.35** each.

How much ticket money is collected?





Programmes cost **15p** each. Selling programmes raises **£12.30**. How many **programmes** are sold?


Show your **method**.
You may get a mark.



17 The table shows the cost of coach tickets to different cities.

		Hull	York	Leeds
Adult	single	£12.50	£15.60	£10.25
	return	£23.75	£28.50	£19.30
Child	single	£8.50	£10.80	£8.25
	return	£14.90	£17.90	£14.75



What is the total cost for a **return** journey to York for one adult and two children?

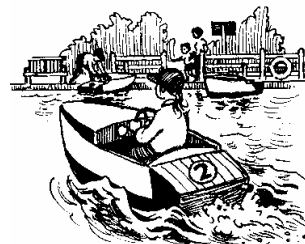
£.....

How much **more** does it cost for two adults to make a **single** journey to Hull than to Leeds?

£.....

18. Boat Hire

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



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

£.....

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

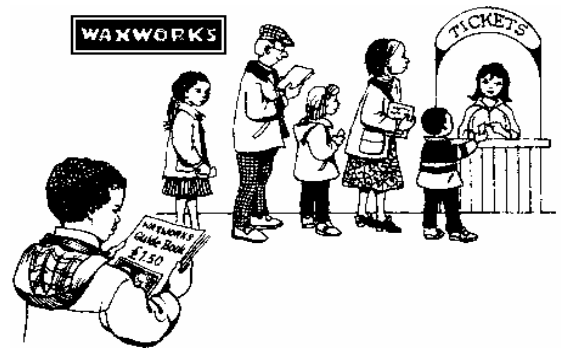
She goes out at **3:20 pm**.

By what time must she **return**?

.....pm

19. This is the cost to visit the waxworks.

Adults	£8.50
Children	£4.50



On Friday morning **12 adults** and **20 children** visit the waxworks.

How much do they pay altogether?

 Show your **method**. You may get a mark.

£

Guide books cost **£1.50** each.

The waxworks sells **£24** worth of **guide books**. How many guide books is this?



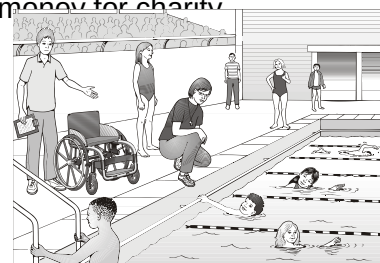
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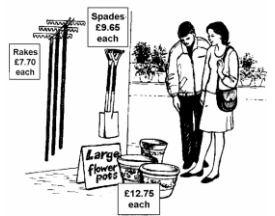
 Show your **method**. You may get a mark.

£

21. Nicola has **£50**.

She buys 3 flowerpots and a spade.

How much money does she have left?



Show
your **method**.
You may get
a mark.

£

2 marks

Seeds are **£1.45** for a packet.

Steffan has £10 to spend on seeds.

What is the **greatest number** of packets he can buy?



.....



22. Here are five coins.

Stefan takes two coins and Lara

takes the other three coins.

Stefan takes **15p more** than Lara.

Tick (✓) the two coins Stefan takes.



23. Emily has these coins.

How much more money does Emily need to make exactly £5?

£.....

Nisha has **thirty** 5p coins and **twenty** 10p coins.

How much money does she have altogether?

£.....



24. Write these prices in order from smallest to largest.

99p

£10.50

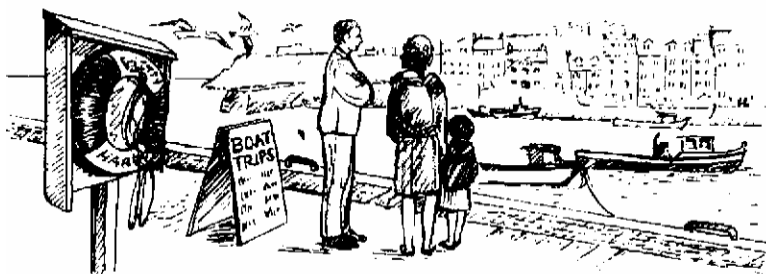
£0.75

£9

£2.05

smallestlargest

25. Tom, Amy and Helen want to go on a boat trip.



There are three boats.

Lark	Heron	Kestrel
50 minute trip	70 minute trip	90 minute trip
Tickets £2.75 each	Tickets £3.50 each	Tickets £4.20 each

How much does it cost altogether for **three** people to go on the **Lark**?

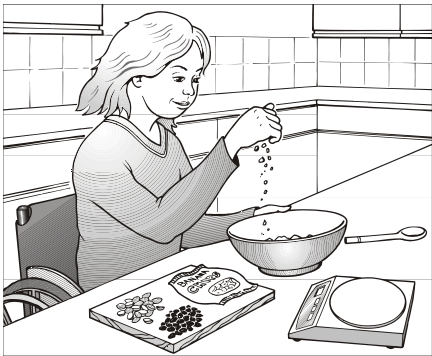


How much does it cost for 4 people to go on the Heron?



Percentages

1. Emily makes 250 grams of a snack mixture.
15% of the weight is raisins, 25% is banana chips
and the rest is peanuts.
How many grams of **peanuts** does she use?





Show your **working**.
You may get a mark.

g

2. Calculate **5%** of **£3600**



£

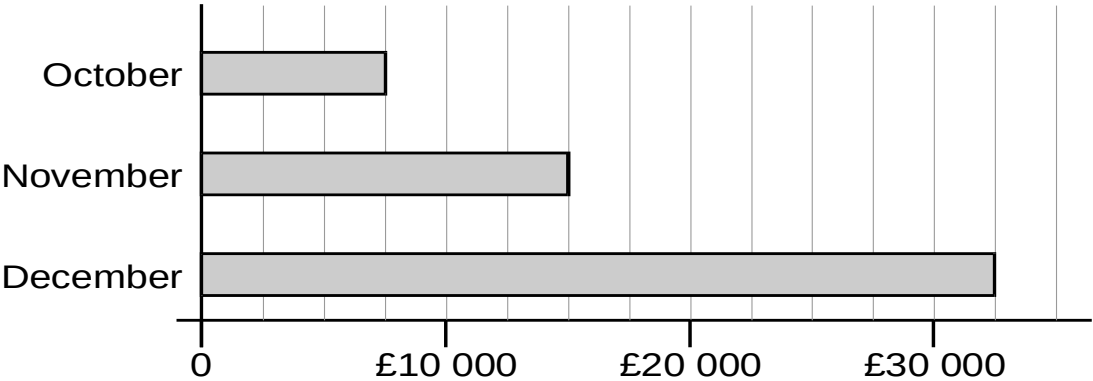
3. Calculate **15%** of **460**



£



4. This chart shows the amount of money spent in a toy shop in three months.



Stephen says,

'In November there was a 100% increase on the money spent in October'.

Is he correct?

Circle Yes or No.



Yes / No

Explain how you can tell from the chart.



.....

.....

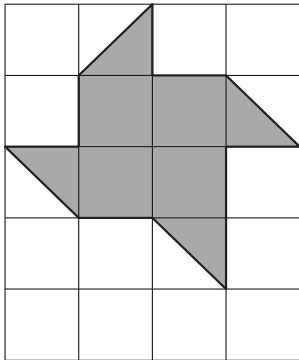
.....

5. Here is a grid of 20 squares.

What percentage of the grid is shaded?



.....%

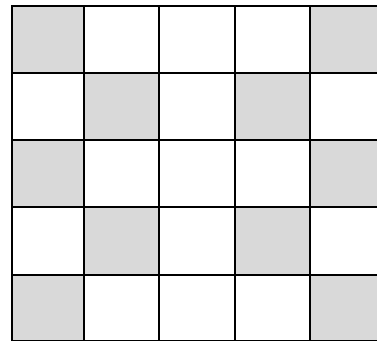


6. Here is a pattern on a grid.

What percentage of the grid is shaded?



.....%



Rounding

1 Round the following numbers.

540 to the nearest 100

236 to the nearest 10

$1\frac{3}{4}$ to the nearest whole number

2. Circle the number that is **closest to 250**



261 246 255 209 275

3. Circle the number that is **closest to 700**



750 72 651 69 770

4. Circle the number **closest** in value to **0.1**



0.01 0.05 0.11 0.2 0.9

5. Circle the number which is **nearest in value to 750**



570 699 810 852 1050

6. Which of these numbers give **80** when **rounded** to the **nearest 10**?

Circle all the correct numbers.



84 87 72 76 90

7. Circle the number **nearest to 1000**

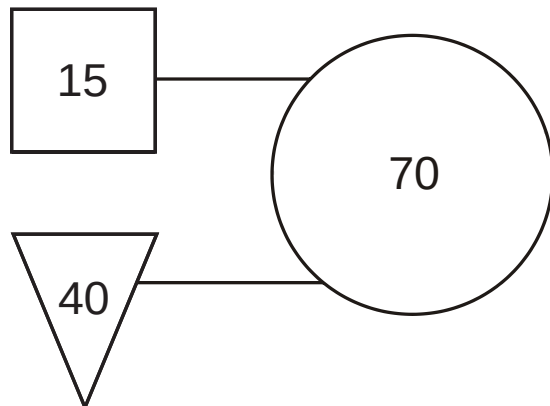


1060 1049 1100 960 899

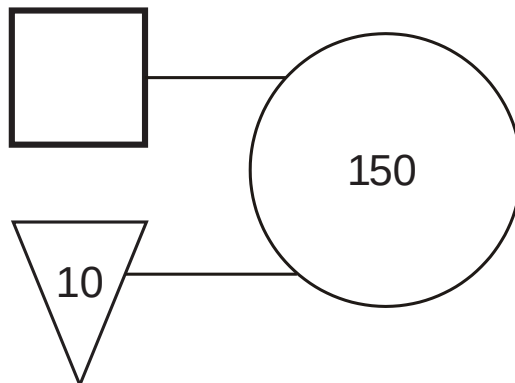
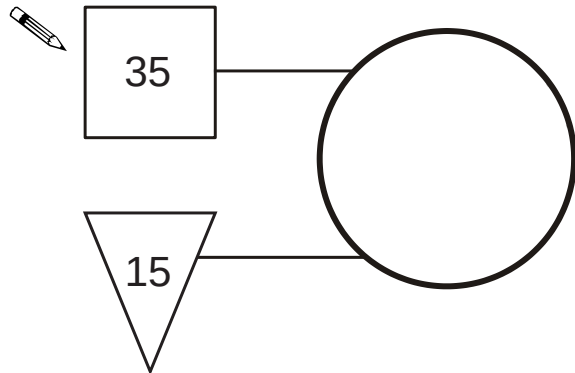
Working Backwards

1. In this diagram the rule is

***'double the number in the square
and add the number in the triangle
to make the number in the circle'.***



Use the same rule to write in the missing numbers below.



2. Ben thinks of a number.

He adds half of the number to a quarter of the number.

The result is 60

What was the number Ben first thought of?



Show your **working**.
You may get a mark.

A large rectangular box with a thin black border, intended for the student to show their working. A small empty rectangular box is located in the bottom right corner of this large box.

3. Rob has some number cards.



He holds up a card.

He says,

'If I multiply the number on this card by 5, the answer is 35'.

What is the number on the card?



He holds up a different card.

He says,

'If I divide the number on this card by 6, the answer is 4'.

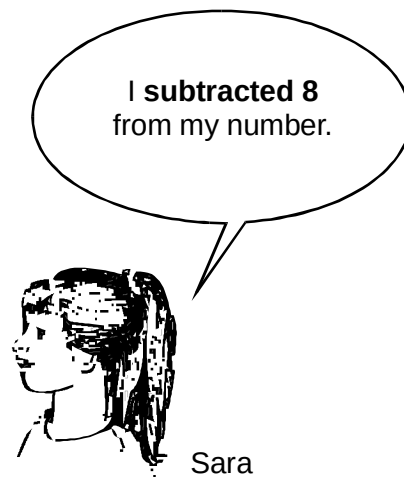
What is the number on the card?



4. Leon and Sara each started with **different** numbers.



Leon



Sara

Leon and Sara both get the **same** answer.

What numbers could they have started with?



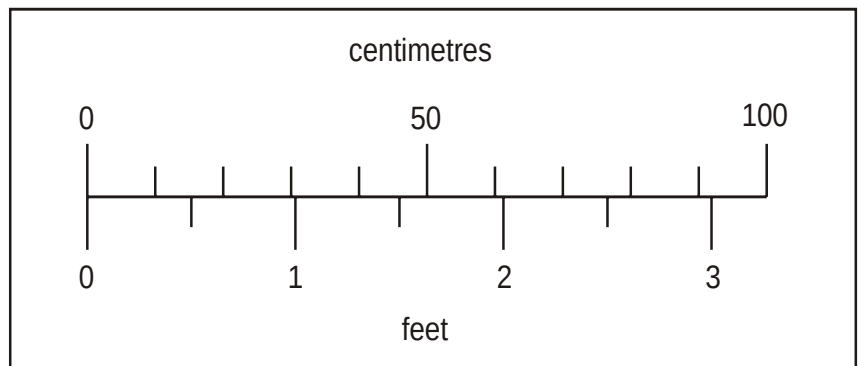
Leon

Sara

Scales

1. This scale shows length measurements in **centimetres** and **feet**.

Look at the scale.



Estimate the number of centimetres that are equal to $2\frac{1}{2}$ feet.

cm

Estimate the difference in centimetres between 50cm and $1\frac{1}{2}$ feet.

cm

2. 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?

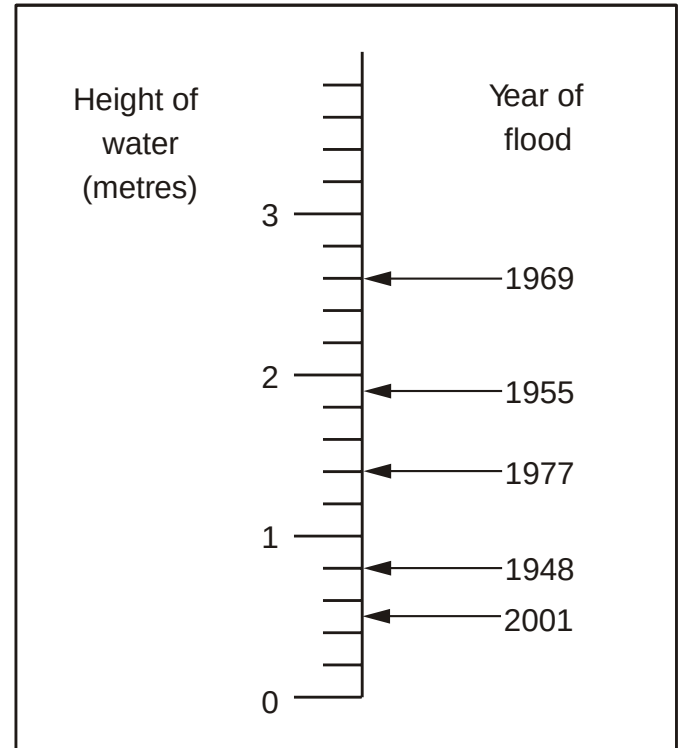


m

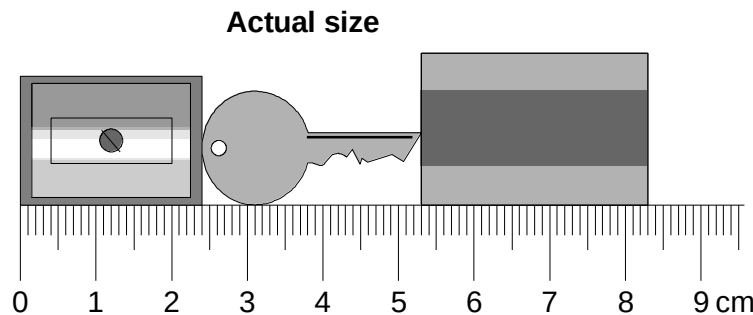
How much higher was the water in the 1969 flood than in the 1948 flood?



m



3. Here are a pencil sharpener, a key and a rubber.



What is the length of **all three things** together?

Give your answer in **millimetres**.

mm

What is the length of the **key**?

Give your answer in **millimetres**.

mm

Weight - Mass

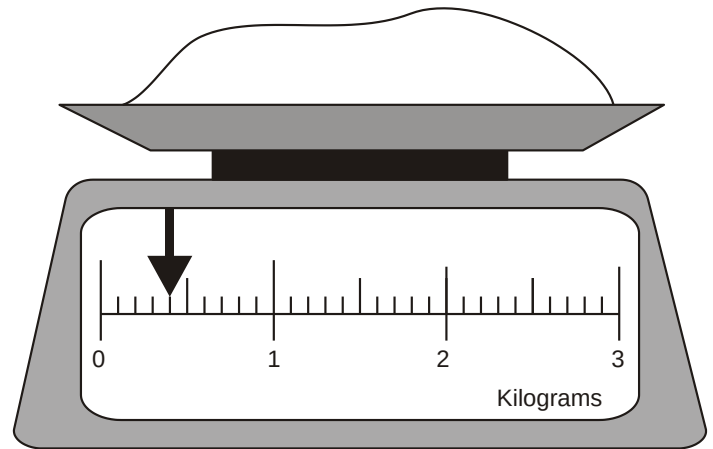
1. Here is some flour on a weighing scale.

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



grams

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



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

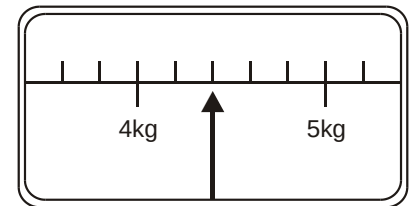
What is the weight of Fred's cat?



kg



Fred's cat



This scale shows the weight of Fred's dog

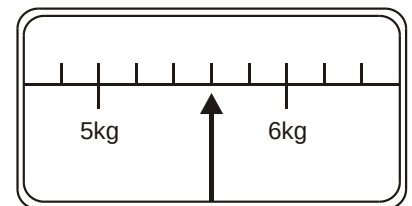
How much **more** does Fred's dog weigh than his cat?



kg



Fred's dog



3. This scale shows how much Mrs Patel weighs.

How much does Mrs Patel weigh?



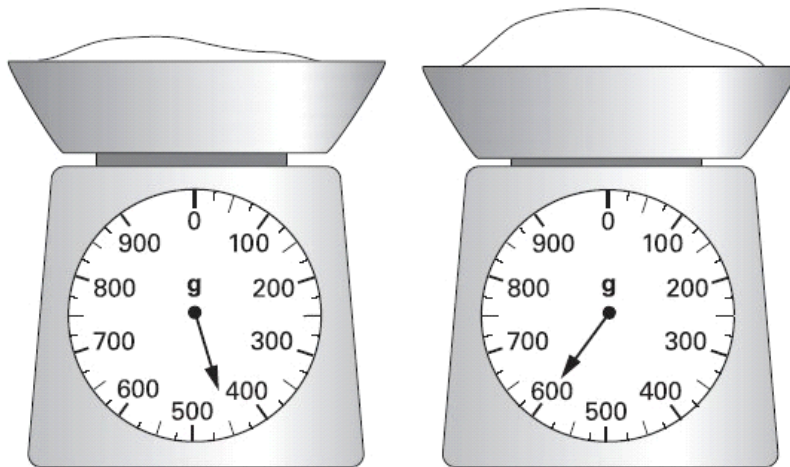
.....



4. Emily is making a cake.

She puts flour on the scales.

She then adds sugar to the flour.

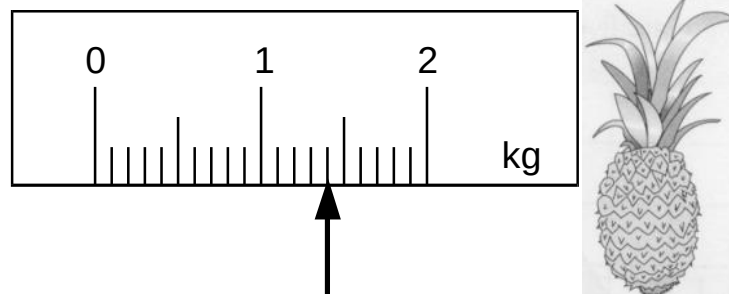


How much sugar does she add?

Show your **method**.
You may get a mark.

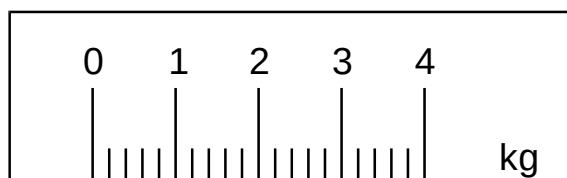
g

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



Here is a **different** scale.

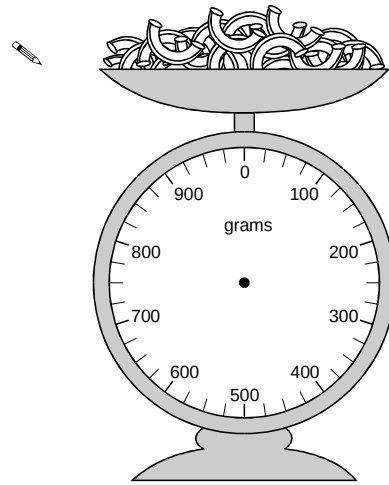
Mark with an arrow (↑) the weight of the **same** pineapple.



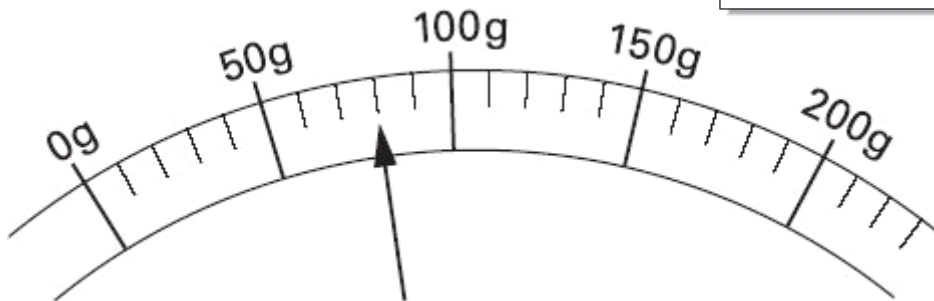
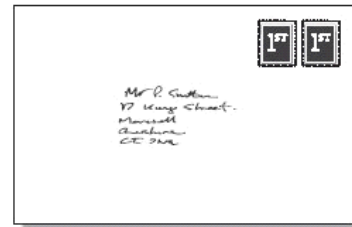
6. Jamie is cooking pasta.

He weighs 350 grams of pasta.

Draw an arrow on the scale to show 350 grams.



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



How much does the letter weigh?

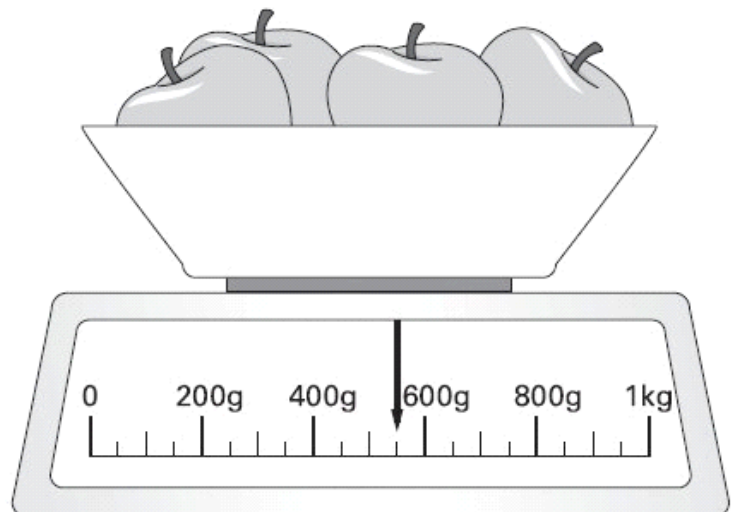
grams

8. Here are some apples.

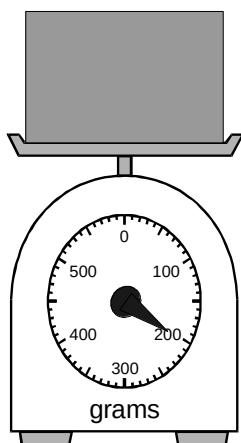
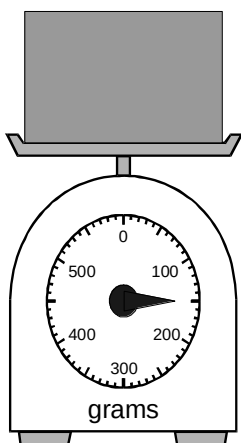
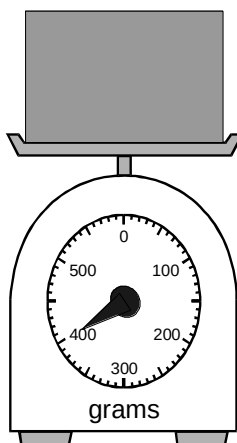
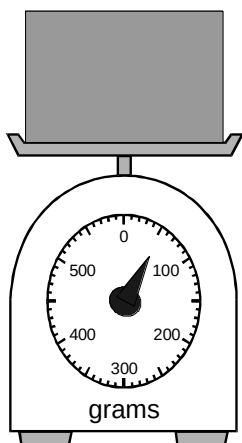
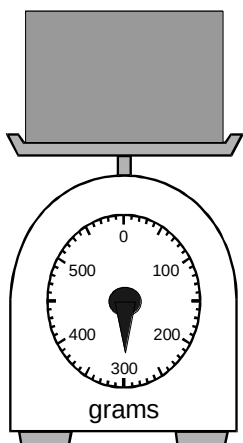
What is the total weight of these apples?



g



9. Put a ring around the lightest box.



10. What is the total mass of these apples?

kg

