Levels 5 & 6

[WORD PROBLEMS]

Advanced Word Problems for Key Stage Two children.

Q1.   427 children visit a castle.
They go in groups of 15. One group has less than 15.
Every group of children has **one** adult with them.

How many **adults** will need to go?

1 mark

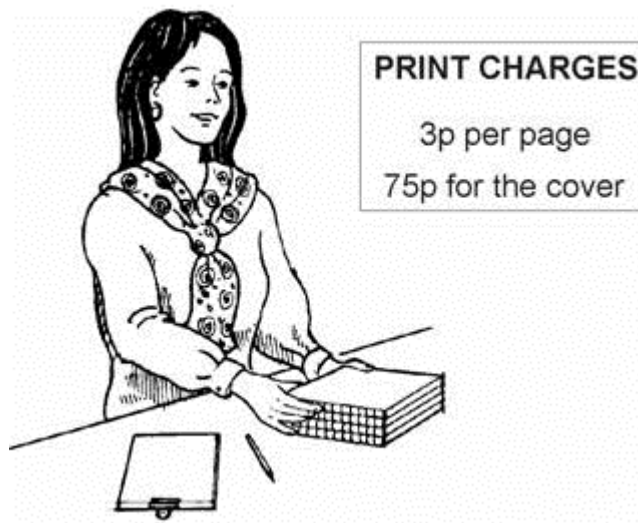Mr Todd buys **7 drinks** at **48p** each and **8 drinks** at **52p** each.

What is the **total** cost of the 15 drinks?

You **must** show your working.

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

£

2 marks

Q2.   Mrs Jones prints books.

PRINT CHARGES
3p per page
75p for the cover

Jon pays **£4.35** for his book, **including the cover.**

How many **pages** are in his book?

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

2 marks

Here are the print prices again.
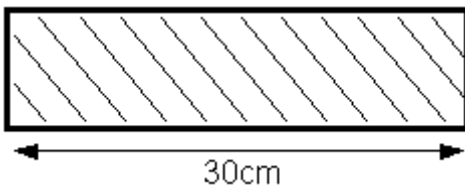
3p per page and 75p for the cover.

Write a formula for the **total cost** of printing a book with cover.

t stands for the total cost in pence.
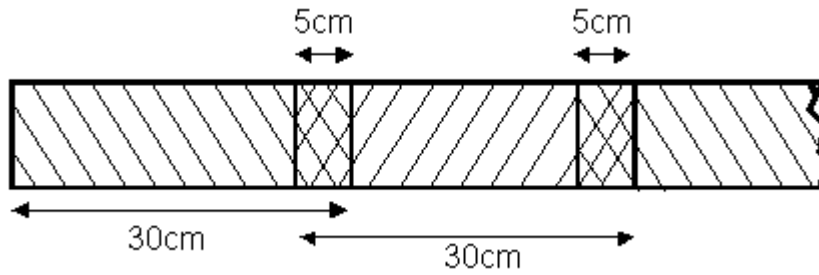
Use **n** for the number of pages.

t =

2 marks

Q3.   Strips of paper are each **30 centimetres** long.

30cm

Steve joins strips of paper together to make a **streamer.**

The strips overlap each other by **5cm.**

5cm   5cm

30cm

30cm

How long is a streamer made from **only 2 strips**?

cm

1 mark

Sunita makes a streamer that is **280cm** long.

How many **strips** does she use?

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

2 marks

Q4.   There are 60g of rice in **one** portion.

How many portions are there in a 3kg bag of rice?

1 mark

Q5.

2753 people go to a sports event.

Each person pays **£2.30** for a ticket.

What is the **total** amount of **ticket money** collected?

£

1 mark
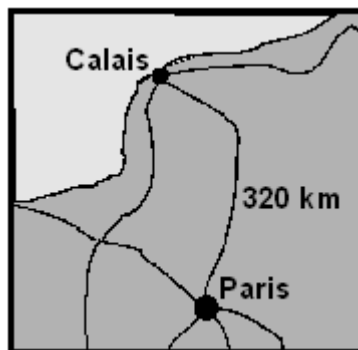
Programmes cost **65p** each.

The total money from programme sales is **£612.95**

How many programmes are sold?

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

2 marks

Q6.   Here is a map of part of France.

The map shows that the distance from Calais to Paris is **320 kilometres.**

5 miles is approximately **8 kilometres.**

Use these facts to calculate the approximate distance in **miles** from Calais to Paris.

miles

2 marks

Samira bought this present in France.

44.85 FF

She paid **44.85 French Francs** for it.

9.75 French Francs equal **£1**

What was the cost of the present in **pounds and pence?**

£

2 marks

Q7.   Here is a recipe for raspberry ice cream.

rasberry ice cream
for 8 people

$\frac{1}{2}$ litre of cream

1kg rasberries

250g sugar

This recipe is for **8 people**.

Josie makes enough raspberry ice cream for **12 people**.

How much **cream** does she use?

litre

1 mark

Fred makes raspberry ice cream in the same way.

He uses **2½ kg** of **raspberries**.
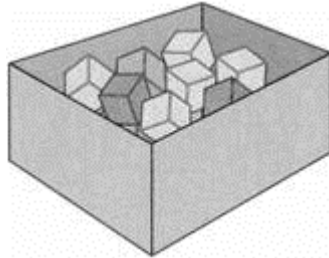
How much **sugar** does he use?

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

g

2 marks

Q8.   There are 24 coloured cubes in a box.

Three-quarters of the cubes are red,

four of the cubes are blue

and the rest are green.

How many **green** cubes are in the box?

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

2 marks

One more **blue** cube is put into the box.

What fraction of the cubes in the box are **blue** now?

1 mark

Q9.

6 green apples for 75p   10 red apples for 90p

Jason bought some bags of green apples and some bags of red apples.

He spent **£4.20**

How many **bags** of each type of apples did he buy?

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

☐ **bags** of **green** apples   ☐ **bags** of **red** apples

2 marks

Nika and Hassan bought some bags of apples.

Nika says,

   'I bought more apples than Hassan, but I spent less money.'

Explain how this is possible.

....

....

....

1 mark

Q10.

Car Boot Sale

Entrance Fee

Adults   50p
Children   30p

100 adults and **80** children pay to go in.

How much money do they pay altogether?

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

£

2 marks

Q11.

250 000 people visited a theme park in one year.

15% of the people visited in April and

40% of the people visited in August.

How many people visited the park in the rest of the year?

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

2 marks

Q12.

Cheddar cheese costs £7.50 for 1kg.

Marie buys 200 grams of cheddar cheese. Robbie said, "What have you bought that junk for? It is horrible!!"

How much does she pay?

£ [   ]

1 mark

Yoghurt costs £3.60 for 1kg.

Robbie buys a pot of yoghurt for 90p.

How many grams of cream cheese does he buy?

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

[g]

2 marks

Q13.

30 children are going on a trip.

It costs **£5** including lunch.

Some children take their own packed lunch.

They pay only **£3**

The 30 children pay a total of **£110**

How many children are taking their own packed lunch?

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

children

2 marks

Q14.   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 **working**. You may get a mark

days

2 marks

Q15.

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

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

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

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

g

2 marks

Q16.

Here is part of a train timetable.

Edinburgh	–	09:35	–	–	13:35	–	–
Glasgow	09:15	–	11:15	13:15	–	13:45	15:15
Stirling	09:57	–	11:57	13:57	–	14:29	15:57
Perth	10:34	10:51	12:34	14:34	14:50	15:15	16:35
Inverness	–	13:10	–	–	17:05	–	–

How long does the first train from Edinburgh take to travel to Inverness?

1 mark

Ellen is at Glasgow station at 1.30pm.

She wants to travel to Perth.

She catches the next train.

At what time will she arrive in Perth?

1 mark

Q17.   Liam thinks of a number.

He **multiplies the number by 5** and then **subtracts 60** from the result.
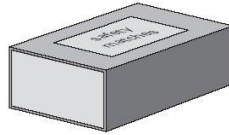
His answer equals the number he started with.

What was the number Liam started with?

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

2 marks

Q18.

A box contains 220 matches and weighs 45 grams.

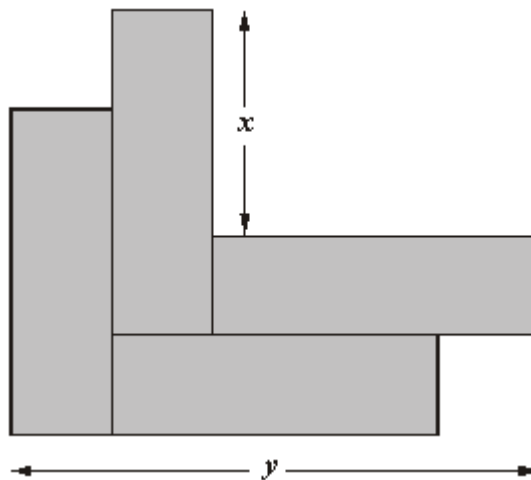The empty box weighs 12 grams.

Calculate the weight of **one** match.

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

g

2 marks

Q19. Kate has some rectangles.

They each measure 16 centimetres by 50 centimetres.

50 cm

16 cm
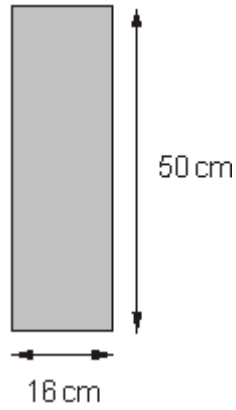
Not actual size

She makes this design with four of the rectangles.

x

y

Work out the lengths x and y.

$x =$ ☐ cm

$y =$ ☐ cm

2 marks

Q20.

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 **working**. You may get a mark

£

2 marks

Q21.   A shop sells notebooks and pens.

Hassan bought **a notebook** and **a pen**.

He paid **£1.10**

Kate bought **a notebook** and **2 pens**.

She paid **£1.45**

Calculate the cost of **a notebook**.

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

2 marks

Small peaches
15p each

Large peaches
25p each

Q22.

Emily has £5 to spend on peaches.

She decides to buy only small peaches or only large peaches.

How many **more** small peaches than large peaches can she buy for £5?
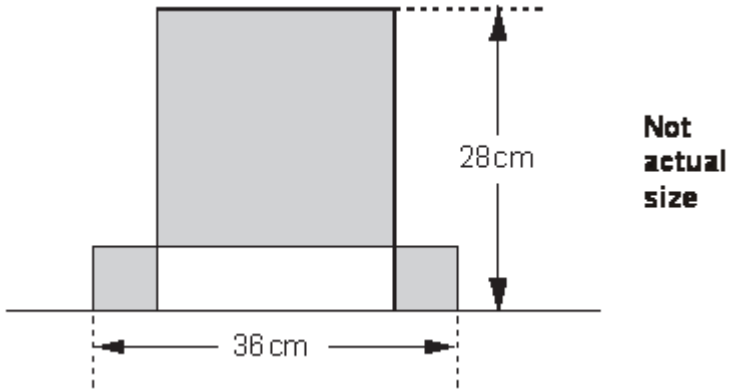
Show your **working**. You may get a mark

2 marks

Q23.   This design has **one large square** and **two identical small squares**.

The design measures 36 centimetres by 28 centimetres.

28cm

Not
actual
size

36 cm

Calculate the length of a side of the **large** square.
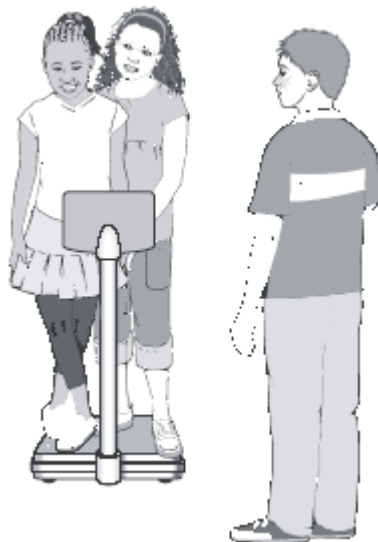
Show
your **working**.
You may get
a mark.

cm

2 marks

Q24.   Sarah, Amy and Liam stand on some weighing scales two at a time.
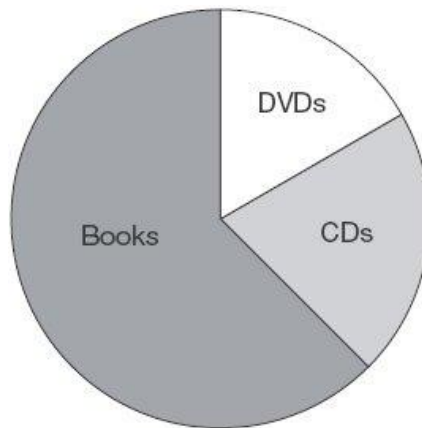
Here are the measurements:

Sarah and Amy	**70kg**
Sarah and Liam	**80kg**
Liam and Amy	**80kg**

How much does Liam weigh?

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

kg

2 marks

Q25.   A shop sells books, CDs and DVDs.

This pie chart shows the sales of each in one week.

Estimate the **fraction** of the total sales that were DVDs.

1 mark

In this week, 200 **CDs** were sold.

Estimate how many books were sold.

1 mark

Q26.   A 5p coin has a diameter of 1.8 centimetres.

1.8cm

Holly makes a straight line of 5p coins worth £10

£10

How long is Holly's line?
Give your answer in **metres**.

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

m

2 marks

Q27.   Here are some number cards.

| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |

Joe picks two **even** numbers.
Dev picks two **odd** numbers.

Joe gives one of his cards to Dev.
Dev gives one of his cards to Joe.

Joe says,

'Now my cards are both square numbers'.

Dev says,

'Now my cards are both multiples of 5'.
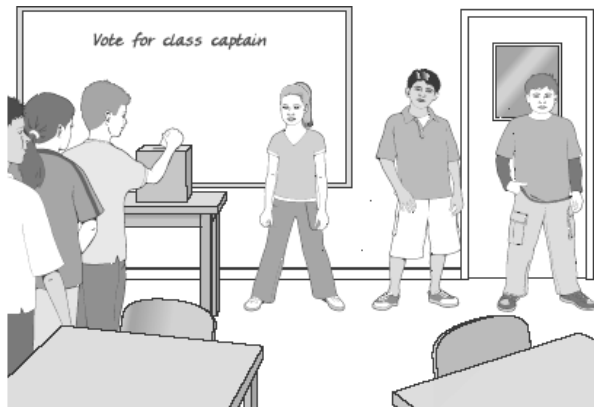
What numbers did they each start with?

Joe started with ☐ and ☐

Dev started with ☐ and ☐

2 marks

Q28.

All the children in Class 6 vote to pick a class captain.

The choice is Holly or Dev or Joe.

	Vote once ✗
Holly	☐
Dev	☐
Joe	☐

Dev gets 10% of the votes.

Joe gets twice as many votes as Holly.

What percentage of the votes does the winner get?

%

Q29.
A school buys some yo-yos as prizes.

The yo-yos cost £4.25 each.

The school has **£40** to spend on prizes.

They buy as many yo-yos as they can.

How much money is left?

Show
your
method

2 marks

Q30.   In a class, 18 of the children are girls.

A quarter of the children in the class are boys.

Altogether, how many children are there in the class?

Show
your
working

2 marks

Q31.

Mina has **5 more** marbles than Kirsty.

Kirsty has **2 more** marbles than Seb.

Altogether they have **30** marbles.

How many marbles does each child have?

Show
your
working

Mina [   ]   Kirsty [   ]   Seb [   ]

2 marks

Q32. Here are two plastic bags of £1 coins.

First bag

Mass of coins:
190 grams

Second bag

Mass of coins:
123.5 grams

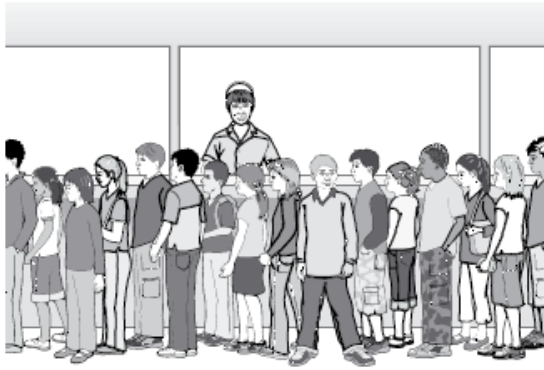The **first** bag contains **20** £1 coins.

How many £1 coins does the **second** bag contain?

Show
your
method

2 marks

Q33.

There are 25 children in the lunch queue, including Nik.

Nik says,

'There are twice as many children in front of me as there are behind me'.

How many children are **in front** of Nik?

Show your working

children

2 marks

Q34.   A dragon lived in a cave.

The dragon **doubled** in size every day.

After **20 days** the dragon filled the cave.

After how many days did the dragon **half-fill** the cave?

After   days

1 mark