## **Questions**

Q1.	Colin, Dave and Emma share some money.
Colin get	s $\frac{3}{10}$ of the money.
Emma an	nd Dave share the rest of the money in the ratio 3 : 2
What is D	Pave's share of the money?
	(Total for Question is 4 marks)
Q2.	
Each day	a company posts some small letters and some large letters.
The comp	pany posts all the letters by first class post.
	es show information about the cost of sending a small letter by first class post and the ending a large letter by first class post.

## Small Letter

Weight	First Class Post
0-100 g	60p

## Large Letter

Weight	First Class Post
0-100 g	£1.00
101-250 g	£1.50
251-500 g	£1.70
501-750 g	£2.50

One day the company wants to post 200 letters.

The ratio of the number of small letters to the number of large letters is 3:2

70% of the large letters weigh 0-100 g.

The rest of the large letters weigh 101-250 g.

Work out the total cost of posting the 200 letters by first class post.

£ .....

(Total for Question is 5 marks)

Q3.

\* Seeta is organising a concert to raise money for a school and for a hospital.

A total of 1

20 of the money received from selling tickets will be spent on hiring a hall.

The rest of the money received from selling tickets will be given to the school and to the hospital in the ratio 2:3

Seeta expects to sell 1000 tickets at £23.50 each.

Work out the amount of money that Seeta expects to give to the school and to the hospital. You must show all your working.

(Total for question = 5 marks)

Q4.

5 schools sent some students to a conference.

This school sent 16 boys. The ratio of the number of boys it sent to the number of girls it sent was $1:2$
The other 4 schools sent only girls. Each of the 5 schools sent the same number of students.
Work out the total number of students sent to the conference by these 5 schools.
(Total for Question is 4 marks)
(Total for Question is 4 marks)
05
Q5.
A supermarket car park has 200 spaces. 10% of the spaces are for staff.
The other spaces are for disabled people, for parents and for other customers in the ratio 1 : 2: 7

Paul is going to paint a sign for each of the spaces for staff, for disabled people and for parents.

One of the schools sent both boys and girls.

He is <b>not</b> going to paint signs for the spaces for other customers.		
Work out the total number of spaces Paul is going to paint a sign for.		
(Total for question = 4 marks)		
Q6.		
* Talil is going to make some concrete mix.		
He needs to mix cement, sand and gravel in the ratio 1 : 3 : 5 by weight.		
Talil wants to make 180 kg of concrete mix.		
Talil has		
15 kg of cement 85 kg of sand 100 kg of gravel		
Does Talil have enough cement, sand and gravel to make the concrete mix?		
(Total for Question is 4 marks)		
Q7.		

Mrs Jennings shares £770 between her two sons, Pete and Tim.

She shares the money in the ratio of her sons' ages.		
The combined age of her two sons is 66 years. Pete is 6 years younger than Tim.		
Work out how much money each son gets. You must show all your working.		
	Pete	£
	Tim	£
	Total for	Question is 5 marks)

Q8.

\*140 children will be at a school sports day. Lily is going to give a cup of orange drink to each of the 140 children. She is going to put 200 millilitres of orange drink in each cup.

The orange drink is made from orange squash and water. The orange squash and water are mixed in the ratio 1:9 by volume.

Orange squash is sold in bottles containing 750 millilitres.

Work out how many bottles of orange squash Lily needs to buy. You must show all your working.

Q9.
Gary's motorbike uses petrol.
Gary needs to mix oil with the petrol. He mixes oil and petrol in the ratio $1:14$ by volume.
Gary is going to ride his motorbike 3000 miles. Each 20 miles he rides uses 1 litre of the oil and petrol mixture.
A 500 ml bottle of oil costs £3.99
Work out the total cost of the bottles of oil Gary needs to buy. (1 litre = $1000 \text{ m/}$ )
You must show all your working.
£
(Total for question = 4 marks)
Q10.
Babajan makes breakfast cereal. She mixes nuts, raisins and oats in the ratio 3 : 2 : 5 by weight.
On Monday, Babajan uses 60 grams of nuts.
(a) Work out the weight of raisins and the weight of oats she uses to make the breakfast cereal.
raisins grams
oats grams
(3)
On Tuesday, Babajan makes 300 grams of the breakfast cereal.
500 grams of nuts cost £8
(b) Work out the cost of the nuts used to make 300 grams of the breakfast cereal.
£

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Q11.		
There are some red counters and some yellow counter	s in a bag in the ratio 1 : 5	
(a) What fraction of the counters in the bag are red?		
		(1)
There are 20 yellow counters in the bag.		
(b) Work out the number of red counters in the bag.		
		(2)
Janet puts some more red counters into the bag. The ratio of the number of red counters to the number	of yellow counters is now 1 : 2	
(c) How many red counters does Janet put into the bag	<b>j</b> ?	
		(2)

(Total for question = 5 marks)

Q12.

Emma has a digital photo.

720 pixels	pixels	Diagram NOT accurately drawn	
The photo has a wi	•		
(a) Write down the	ratio of the wi	idth of the photo to the heigh	nt of the photo.
Give your ratio in it	ts simplest forn	m.	
			(2)
	umber of pixels	h of the photo to the height of the height of the photo. pixels.	of the photo to be 3 : 2
The ratio of the wid	of the photo	o to the new height of the ph	oto is 3 : 2
(b) Work out the n	ew height of th	ne photo.	
			pixels
			(2)
			(Total for question = 4 marks)
Q13.			
Jon shares £700 ed	Jually between	his two children, Ellie and M	addie.

Ellie gives £125 of her share of the money to Maddie.

(a) Write down the ratio of the amount of money Ellie now has to the amount of money Maddie now has.

.....

(2)

Jenny shares £630 between her two children, Daniel and Rose, in the ratio 5:13

(b) Work out how much money Jenny gives to each child.

Daniel	£
Jarrier	L

Rose £
(3)
(Total for question = 5 marks)
Q14.
Rob is learning about the planets.
Rob makes a model of the Sun. He also makes a model of the planet Jupiter.
Rob is going to hang the two models in the school hall.
Rob wants a distance of 16 m between the two models. The real distance between the planet Jupiter and the Sun is 8 $\times$ 10 <sup>8</sup> km.
Work out the scale Rob should use. Give your answer in the form $1:n$
(Total for Question is 3 marks)
Q15.
60 children go to a nursery. The ratio of girls to boys is 3 : 2
The children go to the nursery either in the morning or in the afternoon.
$\frac{3}{4}$ of the children go to the nursery in the morning.

The rest of the children go to the nursery in the afternoon.	
7 boys go to the nursery in the afternoon.	
Work out how many girls go to the nursery in the morning.	
	(Total for question = 5 marks)