# GCSE (1 – 9)

# Sharing Ratio

#### Instructions

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided
- there may be more space than you need.
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must show all your working out.

### Information

- The marks for each question are shown in brackets
- use this as a guide as to how much time to spend on each question.

### Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end

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Will and Olly share $\pounds 80$ in the ratio $3:2$		
Work out how much each of them get.		
	Will £	
	Olly £	
	(Total for Question	n 1 is 3 marks
Molly, Paige and Demi share 42 sweets in the ratio 3 : 2 : 1		
Work out the number of sweets that each of them receives.		
	Molly	sweet
	Paige	swee
	Demi	swee
	(Total for Question	n 2 is 3 marks
ABC is a straight line.		
$\stackrel{\scriptstyle -}{A}$ $\stackrel{\scriptstyle -}{B}$	$\overset{\scriptscriptstyle +}{C}$	
The length of $BC$ is three times the length of $AB$ .		
AC = 80 metres.		
Work out the length <i>BC</i> .		
Work out the length <i>BC</i> .		
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Work out the length <i>BC</i> .		metr

4	Carly and James share some money in the ratio $5:3$ Carly gets £70 more than James.	
	Work out how much money James gets.	
		£
	Laure and Mish share some manaxin the action 2 + 2	(Total for Question 4 is 3 marks)
	Mick gets £900	
	Work out how much money Jerry gets.	
		£
	Ali and Steve share some sweets in the ratio 2 : 7 Steve gets 30 more sweets than Ali.	
	Work out how many sweets Steve gets.	
		(Total for Question 6 is 3 marks)

r	Dave is making cookies. He mixes flour, butter and sugar in the ratio 6:4:1		
	Dave uses 160 grams of butter. Work out how much flour and sugar Dave uses.		
		flour	gram
		sugar	gram
		(Total for Ques	ation 7 is 3 marks)
	Alvin and Simon shared £540 in the ratio $4:5$		
	Alvin gave half of his share to Theo. Simon gave a tenth of his share to Theo.		
	What fraction of the £540 did Theo receive?		
		(Total for Ques	tion 8 is 3 marks)
	<i>ABC</i> is a straight line.		stion 8 is 3 marks)
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10	Bob is going to make some orange paint. He needs to mix red paint, yellow paint and white paint in the ratio 5 : 4 : 1				
	Bob wants t	to make 750 m <i>l</i> of orange paint.			
	Bob has	400 m <i>l</i> of red paint 300 m <i>l</i> of yellow paint 200 m <i>l</i> of white paint			
	Does Bob h You must sl	ave enough red paint, yellow paint and white paint now all your working.	to make the orange paint?		
			(Total for Question 10 is 4 marks)		
11	Megan is go	bing to make a drink using the instructions below.			
		Mix 2 parts of fruit juice with 5 parts of sparkling water			
	Megan has 180 ml of fruit juice and 400 ml of sparkling water.				
	What is the	greatest amount of the drink Megan can make?			
			1		
			(Total for Question 11 is 3 marks)		

In a bag there	are only red counter	ers, blue counter	rs and white cou	nters.	
The table show	ws the probability of	of getting a red of	counter.		
	Colour	Red	Blue	White	
	Probability	0.35			
the nur	mber of blue count	ers : the number	of white counte	prs = 2:3	
Complete the	table.				
				(lotal for Quest	<u>10n 12 is 4 marks)</u>
Al, Tom and J	oe share €3000.				
The ratio of th Joe gets 1.5 tin	te amount Al gets to mes the amount To	o the amount To m gets.	m gets is in the	ratio 5 : 4	
Work out the a	amount of money the	hat Tom gets.			
				€	
				(Total for Quest	ion 13 is 4 marks)
	In a bag there A counter is ta The table show the num Complete the Al, Tom and J The ratio of th Joe gets 1.5 th Work out the a	In a bag there are only red counter A counter is taken at random from The table shows the probability of Colour Probability the number of blue counter Complete the table. Al, Tom and Joe share €3000. The ratio of the amount Al gets to Joe gets 1.5 times the amount To Work out the amount of money to	In a bag there are only red counters, blue counter A counter is taken at random from the bag. The table shows the probability of getting a red of <u>Colour</u> Red <u>Probability</u> 0.35 the number of blue counters : the number Complete the table. Al, Tom and Joe share €3000. The ratio of the amount Al gets to the amount To Joe gets 1.5 times the amount Tom gets. Work out the amount of money that Tom gets.	In a bag there are only red counters, blue counters and white cour A counter is taken at random from the bag. The table shows the probability of getting a red counter. Colour       Red       Blue         Probability       0.35         the number of blue counters : the number of white counter         Complete the table.	In a bag there are only red counters, blue counters and white counters.         A counter is taken at random from the bag.         The table shows the probability of getting a red counter. <ul> <li></li></ul>

Harry and Gary have a total of 300 stickers.The ratio of the number of stickers Harry has to the ratio of the number of stickers Gary has is in the ratio 7 : 3

Harry gives Gary some stickers.

The ratio of the number of stickers Harry has to the ratio of the number of stickers Gary has is now in the ratio 8 : 7

Work out how many stickers Harry gives to Gary. You must show all your working.

(Total for Question 14 is 4 marks)

15 A shop sells small chocolate bars and large chocolate bars.

#### There are

small chocolate bars are sold in packs of 4 large chocolate bars are sold in packs of 9

On one day

the number of packs of small chocolate bars sold : the number of packs of large chocolate bars sold = 5:2

A total of 190 chocolate bars were sold.

Work out the number of small chocolate bars sold.

(Total for Question 15 is 4 marks)

16	Dermot has 240 counters. The counters are either red, or blue, or yellow or green.
	15% of the counters are red.
	$\frac{2}{5}$ of the counters are blue
	The ratio of yellow counters to green counters is 3:1
	Work out the number of yellow counters Dermot has.
	(Total for Question 16 is 4 marks)
17	Daisy bakes 180 cakes. She bakes only chocolate cakes, vanilla cakes, banana cakes and lemon cakes.
	20% of the cakes are chocolate cakes.
	$\frac{4}{9}$ of the cakes are vanilla cakes.
	The ratio of banana cakes to lemon cakes is is 3:5
	Work out the number of lemon cakes Daisy has.
	(Total for Question 17 is 4 marks)

**18** Each month Angelina earns £1800 after tax.

Angelina saves 30% of her salary and she spends the rest.

the amount Angelina spends on rent : the amount she spends on other expenses = 4:5

Work out how much Angelina spends on rent.

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(Total for Question 18 is 3 marks)

£....

**19** There are only red counters and green counters in a bag.

number of red counters : number of green counters = 2:3

There are 28 red counters in the bag.

Work out the total number of counters in the bag.

(Total for Question 19 is 2 marks)

)	Dawn has 36 more stamps than Clara.
	Work out the number of stamps Clara has.
	(Total for Question 20 is 3 marks) In a bag there are counters. The counters are all either red or blue or yellow.
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	In a bag there are counters.         The counters are all either red or blue or yellow.         The number of red counters       : The number of blue counters         The number of yellow counters is 24 more than the numbers of blue counters.         Work out the total number of counters in the bag.
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22 Cameron has some coins with a total value of 95 p	ence.
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She has only 2 pence coins and 5 pence coins. The ratio

number of 2 pence coins : number of 5 pence coins = 2:3

Work out how many 5 pence coins Cameron has.

(Total for Question 22 is 4 marks)

23 Pens and pencils are sold in a shop.

8 pencils cost  $\pm 1.92$ The ratio of the cost of a pen to the cost of a pencil is 4:3

Work out the cost of 5 pens.

(Total for Question 23 is 4 marks)

£



ADB is a straight line.

the size of angle BCD: the size of angle ACD = 2:3

Work out the size of angle *ADC*.

(Total for Question 24 is 4 marks)

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