



## Sharing In Ratios Exam Practice

### Given the Full Amount

- Q1. Simon and Sarah share £180 in the ratio 4 : 5  
Determine how much money each of them get.

$$4 + 5 = 9$$

$$\frac{180}{9} = 20$$

$$4 \times 20 : 5 \times 20$$
$$80 : 100$$

Simon: £ 80

Sarah: £ 100

[2 marks]

- Q2. Hannah and Joyce share 120 sweets in the ratio 7 : 3.  
Find out how many sweets each of them get.

$$7 + 3 = 10$$

$$\frac{120}{10} = 12$$

$$7 \times 12 : 3 \times 12$$
$$84 : 36$$

Hannah: 84

Joyce: 36

[2 marks]

- Q3. Lawrence, Iqbal and Jenny win £500 and decide to split it in the ratio 30 : 40 : 30.  
How much more does Lawrence get than Iqbal?

$$30 + 40 + 30 = 100$$

$$\frac{500}{100} = 5$$

$$30 \times 5 : 40 \times 5 : 30 \times 5$$
$$150 : 200 : 150$$

$$200 - 150 = 50$$

Answer: £50

[2 marks]



### Given Part of the Amount

Q4. Simon and Sarah share some money in the ratio 6 : 10. Simon gets £42.

Determine how much money Sarah gets.

$$\frac{42}{6} = 7$$

$$7 \times 10 = 70$$

Sarah: £ 70

[3 marks]

Q5. Hannah and Joyce share some sweets in the ratio 4 : 7. Hannah gets 48 sweets.

Find out how many sweets there are in total.

$$\frac{48}{4} = 12$$

$$12 \times 7 = 84$$

$$48 : 84$$

$$48 + 84 = 132$$

Total: 132

[3 marks]

Q6. Tania, Hannah and Dawn share the profits for their joint business in the ratio 3: 5: 1. In a given year Tania's share of the profit is £2,700.

Work out the difference in the amounts received by the person that receives the most and the person that receives the least.

$$\frac{2700}{3} = 900$$

$$\text{Most} = 900 \times 5 = 4500$$

$$\text{Least} = 900 \times 1 = 900$$

$$4500 - 900 = 3600$$

Answer: £3600

[3 marks]



### Given a Difference

- Q7. Thomas and Jeremy share sweets in the ratio 3 : 5. Thomas gets 10 fewer sweets than Jeremy.  
Determine how many sweets each of them get.

$$5 - 3 = 2$$

$$\frac{10}{2} = 5$$

$$3 \times 5 : 5 \times 5 = 15 : 25$$

$$\begin{array}{l} \text{Thomas: } \underline{15} \\ \text{Jeremy: } \underline{25} \end{array}$$

[3 marks]

- Q8: Simon and Trevor share the proceeds from their market stall in the ratio 3:7. On a given day, Trevor gets £120 more than Simon.

Work out the total profit on this day.

$$7 - 3 = 4$$

$$\frac{120}{4} = 30$$

$$3 \times 30 : 7 \times 30$$

$$90 : 210$$

$$90 + 210 = 300$$

$$\text{Answer: } \underline{£300}$$

[3 marks]

- Q9: Dave, John and Kris have an agreement that they will share some money they have won in the ratio 3 : 5 : 7. Kris gets £40 more than John.

Calculate Dave's share of the winnings.

$$7 - 5 = 2$$

$$\frac{40}{2} = 20$$

$$20 \times 3 = 60$$

$$\text{Answer: } \underline{£60}$$

[3 marks]



## Mixed Problems

Q10: Simon is baking cookies. He mixes flour, butter and sugar in the ratio 5 : 3 : 2. Dave uses 120 grams of sugar.

Work out how much flour and butter Dave uses.

$$\frac{120}{2} = 60$$

$$60 \times 5 = 300 \text{ flour}$$

$$60 \times 3 = 180 \text{ butter}$$

[3 marks]

Q11: Thomas and Gordon share £500 in the ratio 7:3. Gordon then gives a tenth half of his share to Percy.

What fraction of the original amount does Percy receive?

$$7 + 3 = 10$$

$$\frac{500}{10} = 50$$

$$50 \times 3 = 150 \text{ (Gordon)}$$

$$\frac{150}{10} = 15 \text{ (Percy)}$$

$$\frac{15}{500} = \frac{3}{100}$$

Answer:  $\frac{3}{100}$

[3 marks]

Q12: Hannah wants to make 500ml of a fruit drink that requires orange juice, cranberry juice and water in the ratios 1:2:4. Hannah has 50ml of Cranberry Juice.

Is this enough to make 500ml of the fruit drink? Show all of your working.

$$\frac{50}{2} = 25$$

$$1 \times 25 : 2 \times 25 : 4 \times 25$$

$$25 : 50 : 100$$

$$100 + 50 + 25 = 175$$

175 is less than 500  
∴ she does not have enough

[3 marks]