

Ratio Problem Solving

Question Paper

Course	Edexcel IGCSE Maths
Section	1. Numbers & the Number System
Topic	Ratio Problem Solving
Difficulty	Medium

Time allowed: 60
Score: /46
Percentage: /100

Question 1

In a box of pens, there are

three times as many red pens as green pens

and two times as many green pens as blue pens.

For the pens in the box, write down

the ratio of the number of red pens to the number of green pens to the number of blue pens.

[2 marks]

Question 2

30% of the people at a concert are female.

1295 of the people at the concert are male.

Work out the number of people at the concert who are female.

[3 marks]

Question 3

Colin, Dave and Emma share some money.

Colin gets $\frac{3}{10}$ of the money.

Emma and Dave share the rest of the money in the ratio 3 : 2

What is Dave's share of the money?

[4 marks]

Question 4a

Pavel and Katie share some sweets in the ratio 3 : 8

Katie gets 32 sweets.

How many sweets does Pavel get?

[2 marks]

Question 4b

Katie also has a tin of chocolates.

There are 80 chocolates in the tin.

45% of the chocolates have toffee in the middle.

Work out the number of chocolates that have toffee in the middle.

[2 marks]

Question 5

Raya buys a van for £8500 plus VAT at 20%

Raya pays a deposit for the van.

She then pays the rest of the cost in 12 equal payments of £531.25 each month.

Find the ratio of the deposit Raya pays to the total of the 12 equal payments.

Give your answer in its simplest form.

[5 marks]

Question 6

In a village

the number of houses and the number of flats are in the ratio 7 : 4

the number of flats and the number of bungalows are in the ratio 8 : 5

There are 50 bungalows in the village.

How many houses are there in the village?

[3 marks]

Question 7

There are some people in a cinema.

$\frac{3}{5}$ of the people in the cinema are children.

For the children in the cinema,

$$\text{number of girls} : \text{number of boys} = 2 : 7$$

There are 170 girls in the cinema.

Work out the number of adults in the cinema.

[5 marks]

Question 8

Anna and Lionel share \$675 in the ratio 4 : 5

Lionel gives $\frac{3}{5}$ of his share of the money to his mother.

How much money does Lionel give to his mother?

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[3 marks]

Question 9

Joe and Kyle share an amount of money in the ratio $7 : n$

Joe gets 35% of the money.

Work out the value of n .

[2 marks]

Question 10

In a box of mixed nuts, the total number of almonds, cashews and peanuts is 1025.

The ratio of almonds to cashews is 1 : 3.

The ratio of cashews to peanuts is 5 : 7.

Calculate the number of cashews in the box.

[4 marks]

Question 11

A box contains only red, blue and green pens.

The ratio of red pens to blue pens is 5 : 9.

The ratio of blue pens to green pens is 1 : 4.

Calculate the percentage of pens that are blue.

[4 marks]

Question 12

There is a total of 250 men, women and children on a train.

The ratio of men to women is 4 : 5.

The ratio of women to children is 10 : 7.

How many men are on the train?

[4 marks]

Question 13

A bag of sweets contains only mints, sherberts and toffees.

The ratio of the number of mints to sherberts is 2 : 3.

The ratio of the number of sherberts to toffees is 7 : 5.

What fraction of the sweets are sherberts?

[3 marks]

