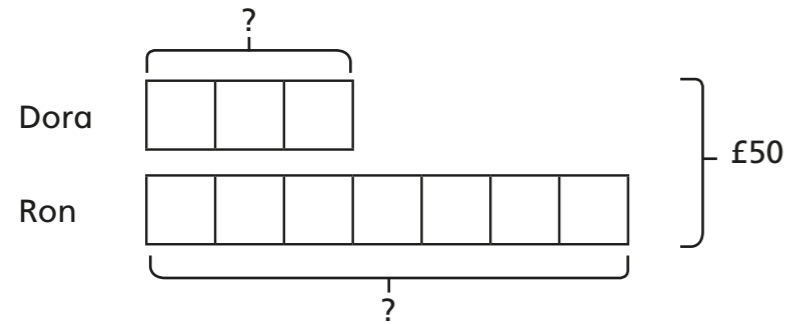


Divide in a given ratio

1 Dora and Ron share £50 in the ratio 3 : 7



a) Discuss with a partner how this bar model represents the question.

b) How much money do they each receive?

Dora receives Ron receives

2 Eva gets £42 a month for her allowance.

Out of this, for every £5 she spends, she saves £1

a) Draw a bar model to represent this.



b) How much money does Eva save in a month?

c) How much money does Eva spend in a month?

d) The next month, Eva changes the ratio of the amount she saves to the amount she spends to 2 : 5

Will Eva save more or less? How much more or less will she save?

3 Purple paint is made by mixing red and blue paint in the ratio 5 : 4
How much more red paint than blue paint is in 450 ml of the mixture?

4 Mo, Aisha and Jack share £400 in the ratio 3 : 1 : 4
How much money do they each receive? Show your workings.

Mo Aisha Jack

5 Share the numbers in the given ratios.

a) Share 150 in the ratio 6 : 4

 :

Share 150 in the ratio 3 : 2

 :

b) Share 75 in the ratio 3 : 2

 :

Share 75 in the ratio 2 : 3

 :

c) Share 25 in the ratio 2 : 3

 :

Share 100 in the ratio 2 : 3

 :

d) What do you notice about your answers?
What is the same? What is different?



6 The angles in a triangle are in the ratio 1 : 1 : 4

a) What type of triangle is it? How do you know?

b) What is the size of the largest angle in the triangle?

7 The mean of four numbers is 16

The numbers are in the ratio 1 : 7 : 3 : 5

Work out the range of the numbers. Show your workings.

8 $x : y = 4 : 9$
 $x + y = 52$

a) Work out the value of x .

b) Work out the value of y .

Use your answers to parts a) and b) to work out these values.

c) $y - x =$

e) $x^2 + 3y =$

d) $x - y =$

f) $5x - 3y =$