GCSE HIGHER · REVISION MAT 3

Ratio problems

1 Write 15 : 25 in its simplest form.

2 Share 1.2 kg in the ratio 1 : 5.

3 Tom says that in the ratio 2 : 3, the first part is $\frac{2}{3}$ of the total.

Explain his mistake.

4 Pasta : sauce = 3 : 2 in a recipe.

A recipe for 6 people uses 300 g of pasta.

How much sauce is needed for 9 people?

5 $a : b = 5 : 2$ and $a - b = 21$.

Show that $a + b = 49$.

6 Adults : children in a club = 5 : 2.

8 more children join and the ratio becomes 5 : 3.

How many adults are there?

7 $a : b = 3 : 7$

Show that a is $\frac{3}{10}$ of $a + b$.

8 Bag A has red : blue = 2 : 3.

Bag B has red : blue = 1 : 4.

Both bags have the same number of counters.

Find red : blue when all are combined.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 3

Ratio problems

1 **3 : 5**

2 6 parts = 1200 g

200 g and 1000 g

3 There are 5 parts in total.

It is $\frac{2}{5}$ of the total.

4 Pasta for 9: 450 g

Sauce: 300 g

5 3 parts = 21, 1 part = 7

35 + 14 = 49

6 $2x + 8 = 3x \Rightarrow x = 8$

40 adults

7 $a + b = 10$ parts

a = 3 parts, so $\frac{3}{10}$

8 Red: $\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$ of one bag

Out of 2 bags: $\frac{3}{10}$ red

3 : 7

Mr&Mrs MATHS