GCSE FOUNDATION · REVISION MAT 3

Ratio problems

1 Share £72 in the ratio 5 : 3

2 The ratio of cats to dogs in a group is 3 : 8.

There are 27 cats.

How many dogs are there?

3 Amy and Ben share some money in the ratio 3 : 5.

Uma says Amy gets $\frac{3}{5}$ of the money.

Explain why Uma is wrong.

4 White and black paint are mixed in the ratio 4 : 1.

Show that 20 litres of the mix contains 4 litres of black paint.

5 Ali and Ben share some money in the ratio 4 : 9.

Ben gets £35 more than Ali.

How much money is shared altogether?

6 A recipe uses flour, butter and sugar in the ratio 6 : 3 : 2 by mass.

Kim has 450 g of flour, 270 g of butter and 200 g of sugar.

What is the greatest total mass of mixture she can make?

Mr&Mrs MATHS

ANSWERS · REVISION MAT 3

Ratio problems

1 8 parts, 1 part = £9

£45 and £27

2 1 part = 27 ÷ 3 = 9

Dogs: 9 × 8 = **72**

3 There are 3 + 5 = 8 parts altogether.

Amy gets $\frac{3}{8}$ of the money.

4 5 parts = 20 litres, 1 part = 4 litres

Black: 1 × 4 = 4 litres ✓

5 Difference = 5 parts = £35

1 part = £7

Total = 13 × £7 = **£91**

6 Parts: flour 450 ÷ 6 = 75, butter 270 ÷ 3 = 90, sugar 200 ÷ 2 = 100

Flour runs out first: 1 part = 75 g

Total = 11 × 75 = **825 g**

Mr&Mrs MATHS