GCSE FOUNDATION · REVISION MAT 5

Proportion and equal ratios

1 Find the missing numbers.

(a) 7 : 4 = 21 : ☐

(b) 9 : ☐ = 6 : 14

2 Squash and water are mixed in the ratio 3 : 10.

Tom uses 350 ml of water.

How much squash does he need?

3 Are the ratios 14 : 21 and 10 : 15 equivalent?
Explain your answer.

4 A photo is 16 cm wide and 12 cm tall.

It is enlarged so that the width is 20 cm.

Show that the new height is 15 cm.

5 Black and white paint
are mixed in the ratio 4 : 5.

Kim has 2.4 litres of black
and 3.5 litres of white paint.

What is the greatest amount
of mixed paint she can make?

6 A recipe for 15 cookies uses
240 g of flour and 90 g of butter.

Zak has 1000 g of flour and 400 g of butter.

What is the greatest number
of cookies he can make?

Mr&Mrs MATHS

ANSWERS · REVISION MAT 5

Proportion and equal ratios

1 (a) **12**

(b) **21**

2 350 ÷ 10 × 3 = **105 ml**

3 14 : 21 = 2 : 3

10 : 15 = 2 : 3

Yes, they simplify to the same ratio.

4 Scale factor = 20 ÷ 16 = 1.25

12 × 1.25 = 15 cm ✓

5 Black: 2.4 ÷ 4 = 0.6 per part

White: 3.5 ÷ 5 = 0.7 per part

Black runs out first: 1 part = 0.6 litres

Total = 9 × 0.6 = **5.4 litres**

6 Flour allows 1000 ÷ 240 × 15 = 62.5

Butter allows 400 ÷ 90 × 15 = 66.6667

62 cookies