GCSE FOUNDATION · REVISION MAT 3

Proportion and equal ratios

1 Find the missing numbers.

(a) 4 : 9 = 20 : ☐

(b) 5 : ☐ = 8 : 32

2 Squash and water are mixed in the ratio 2 : 9.

Tom uses 270 ml of water.

How much squash does he need?

3 Are the ratios 4 : 10 and 6 : 15 equivalent?
Explain your answer.

4 A photo is 20 cm wide and 16 cm tall.

It is enlarged so that the width is 25 cm.

Show that the new height is 20 cm.

5 Yellow and blue paint
are mixed in the ratio 1 : 3.

Kim has 0.9 litres of yellow
and 2.4 litres of blue paint.

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

6 A recipe for 16 cookies uses
300 g of flour and 120 g of butter.

Zak has 1200 g of flour and 450 g of butter.

What is the greatest number
of cookies he can make?

Mr&Mrs MATHS

ANSWERS · REVISION MAT 3

Proportion and equal ratios

1 (a) **45**

(b) **20**

2 270 ÷ 9 × 2 = **60 ml**

3 4 : 10 = 2 : 5

6 : 15 = 2 : 5

Yes, they simplify to the same ratio.

4 Scale factor = 25 ÷ 20 = 1.25

16 × 1.25 = 20 cm ✓

5 Yellow: 0.9 ÷ 1 = 0.9 per part

Blue: 2.4 ÷ 3 = 0.8 per part

Blue runs out first: 1 part = 0.8 litres

Total = 4 × 0.8 = **3.2 litres**

6 Flour allows 1200 ÷ 300 × 16 = 64

Butter allows 450 ÷ 120 × 16 = 60

60 cookies

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