GCSE FOUNDATION · REVISION MAT 4

Proportion and equal ratios

1 Find the missing numbers.

(a) 5 : 6 = 30 : ☐

(b) 3 : ☐ = 12 : 28

2 Squash and water are mixed in the ratio 1 : 6.

Tom uses 240 ml of water.

How much squash does he need?

3 Are the ratios 9 : 12 and 12 : 15 equivalent?
Explain your answer.

4 A photo is 9 cm wide and 6 cm tall.

It is enlarged so that the width is 15 cm.

Show that the new height is 10 cm.

5 Green and white paint
are mixed in the ratio 2 : 3.

Kim has 1.8 litres of green
and 2.4 litres of white paint.

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

6 A recipe for 9 cookies uses
180 g of flour and 80 g of butter.

Zak has 800 g of flour and 400 g of butter.

What is the greatest number
of cookies he can make?

Mr&Mrs MATHS

ANSWERS · REVISION MAT 4

Proportion and equal ratios

1 (a) **36**

(b) **7**

2 240 ÷ 6 × 1 = **40 ml**

3 9 : 12 = 3 : 4

12 : 15 = 4 : 5

No, they do not simplify to the same ratio.

4 Scale factor = 15 ÷ 9 = 1.66667

6 × 1.66667 = 10 cm ✓

5 Green: 1.8 ÷ 2 = 0.9 per part

White: 2.4 ÷ 3 = 0.8 per part

White runs out first: 1 part = 0.8 litres

Total = 5 × 0.8 = **4 litres**

6 Flour allows 800 ÷ 180 × 9 = 40

Butter allows 400 ÷ 80 × 9 = 45

40 cookies