GCSE FOUNDATION · REVISION MAT 1

Proportion and equal ratios

1 Find the missing numbers.

(a) 3 : 5 = 12 : ☐

(b) 4 : ☐ = 10 : 25

2 Squash and water are mixed in the ratio 1 : 5.

Tom uses 150 ml of water.

How much squash does he need?

3 Are the ratios 6 : 8 and 9 : 12 equivalent?
Explain your answer.

4 A photo is 12 cm wide and 8 cm tall.

It is enlarged so that the width is 18 cm.

Show that the new height is 12 cm.

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

Kim has 1.6 litres of red and 3.5 litres of white paint.

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

6 A recipe for 12 cookies uses
250 g of flour and 100 g of butter.

Zak has 1000 g of flour and 300 g of butter.

What is the greatest number
of cookies he can make?

Mr&Mrs MATHS

ANSWERS · REVISION MAT 1

Proportion and equal ratios

1 (a) **20**

(b) **10**

2 150 ÷ 5 × 1 = **30 ml**

3 6 : 8 = 3 : 4

9 : 12 = 3 : 4

Yes, they simplify to the same ratio.

4 Scale factor = 18 ÷ 12 = 1.5

8 × 1.5 = 12 cm ✓

5 Red: 1.6 ÷ 2 = 0.8 per part

White: 3.5 ÷ 5 = 0.7 per part

White runs out first: 1 part = 0.7 litres

Total = 7 × 0.7 = **4.9 litres**

6 Flour allows 1000 ÷ 250 × 12 = 48

Butter allows 300 ÷ 100 × 12 = 36

36 cookies