GCSE FOUNDATION · REVISION MAT 1

Simplifying ratios

1 Write each ratio in its simplest form.

(a) 18 : 24

(b) 45 : 60 : 75

2 Write 40 cm : 2 m in its simplest form.

3 Ella writes 12 : 18 in its simplest form as 2 : 3.

Jo writes it as 4 : 6.

Who is right? Explain your answer.

4 Show that 2.5 : 4 can be written as 5 : 8

5 School A has 24 teachers and 432 students.

In school B, the ratio of teachers to students is 1 : 17.

Which school has more students per teacher?

6 A bag has red and blue counters in the ratio 3 : 5.

4 red counters are added.

The ratio is now 1 : 1.

How many counters were in the bag at the start?

Mr&Mrs MATHS

1 (a) **3 : 4**

(b) **3 : 4 : 5**

2 Use the same units first.

1 : 5

3 **Ella**. 4 : 6 can still be divided by 2, so it is not in its simplest form.

ANSWERS · REVISION MAT 1

Simplifying ratios

4 Multiply both parts so there are no decimals, then simplify:

2.5 : 4 = 5 : 8 ✓

5 School A: 432 ÷ 24 = 18, so 1 : 18

School A has more students per teacher.

6 Red $3x$, blue $5x$

$1(3x + 4) = 1 \times 5x$ gives $x = 2$

Start: 6 red, 10 blue = **16**