GCSE FOUNDATION · REVISION MAT 2

Simplifying ratios

1 Write each ratio in its simplest form.

(a) 28 : 42

(b) 36 : 54 : 90

2 Write 750 g : 1.5 kg in its simplest form.

3 Kai writes 20 : 30 in its simplest form as 2 : 3.

Lin writes it as 4 : 6.

Who is right? Explain your answer.

4 Show that 1.5 : 6 can be written as 1 : 4

5 School A has 15 teachers and 330 students.

In school B, the ratio of teachers to students is 1 : 21.

Which school has more students per teacher?

6 A bag has red and blue counters in the ratio 2 : 7.

6 red counters are added.

The ratio is now 1 : 2.

How many counters were in the bag at the start?

Mr&Mrs MATHS

1 (a) **2 : 3**

(b) **2 : 3 : 5**

2 Use the same units first.

1 : 2

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

ANSWERS · REVISION MAT 2

Simplifying ratios

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

1.5 : 6 = 1 : 4 ✓

5 School A: 330 ÷ 15 = 22, so 1 : 22

School A has more students per teacher.

6 Red $2x$, blue $7x$

$2(2x + 6) = 1 \times 7x$ gives $x = 4$

Start: 8 red, 28 blue = **36**