GCSE HIGHER · REVISION MAT 3

Proportion and equivalent ratios

1 Is 4 : 10 equivalent to 6 : 15?

2 Find x.

$5 : 8 = x : 56$

3 Explain the mistake:
'2 : 3 = 4 : 5 because 2 was added to each part.'

4 £1 = €1.20

Write this as a ratio and convert £350 to euros.

5 x is positive.

Show that $\frac{3}{x} = \frac{x}{12}$ gives $x = 6$.

6 On a map, 3 cm represents 7.5 km.

What does 8 cm represent?

7 Show that triangles with sides 3, 4, 5 and 7.5, 10, 12.5 have sides in proportion.

8 Find x.

$(2x - 1) : (x + 4) = 3 : 4$

Mr&Mrs MATHS

ANSWERS · REVISION MAT 3

Proportion and equivalent ratios

1 **Yes: both simplify to 2 : 5.**

2 × 7

***x* = 35**

3 **Equivalent ratios multiply, not add: 2 : 3 = 4 : 6.**

4 £ : € = 1 : 1.2

€420

5 $x^2 = 36$

***x* = 6**

6 1 cm = 2.5 km

20 km

7 **Each side × 2.5**

8 $4(2x - 1) = 3(x + 4)$

$5x = 16$

***x* = 3.2**