GCSE HIGHER · REVISION MAT 4

Proportion and equivalent ratios

1 Find x.

$x : 9 = 2 : 3$

2 Find n.

$1.5 : 4 = 6 : n$

3 Show that $0.5 : 2 = 3 : 12$.

4 Mortar uses 1 part cement to 5 parts sand.

How many bags of sand go with 4 bags of cement?

5 Show that if $3 : x = x : 27$, then $x = 9$ (with $x > 0$).

6 A ramp rises 0.4 m over 3 m.

A ramp with the same slope is 7.5 m long.

How much does it rise?

7 Explain why

$a : b = c : d$ means $\frac{a}{b} = \frac{c}{d}$.

8 Find x.

$x : (x + 6) = 2 : 5$

Mr&Mrs MATHS

ANSWERS · REVISION MAT 4

Proportion and equivalent ratios

1 $x = 6$

2 $\times 4$

$n = 16$

3 Both simplify to 1 : 4.

4 20 bags

5 $x^2 = 81$

$x = 9$

6 $\times 2.5$

1 m

7 Equivalent ratios compare the parts in the same way, so the fractions are equal.

8 $5x = 2(x + 6)$

$3x = 12$

$x = 4$

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