GCSE HIGHER · REVISION MAT 2

Proportion and equivalent ratios

1 Find x.

$$2 : 5 = x : 20$$

2 Find y.

$$3 : y = 18 : 30$$

3 Show that 6 : 9 and 10 : 15 are equivalent.

4 Paint is mixed 2 parts blue to 3 parts white.

How much blue is needed for 7.5 litres of white?

5 Explain why 4 : 6 = 6 : 9 is a true proportion.

6 A 12 m pole casts a 9 m shadow.

How long is the shadow of a 1.6 m person at the same time?

7 Show that $(x + 1) : 3 = 4 : 6$ gives $x = 1$.

8 x is positive.

$$x : 4 = 9 : x$$

Find x.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 2

Proportion and equivalent ratios

1 $x = 8$

2 $\div 6$

$y = 5$

3 Both simplify to 2 : 3.

4 1 part = 2.5 L

5 litres

5 $\frac{4}{6} = \frac{6}{9} = \frac{2}{3}$

6 Shadow = $\frac{3}{4}$ of height

1.2 m

7 $6(x + 1) = 12$

$x = 1$

8 $x^2 = 36$

$x = 6$

Mr&Mrs MATHS