GCSE HIGHER · REVISION MAT 1

Ratio problems

1 Share £60 in the ratio 2 : 3.

2 Red and blue counters are in the ratio 3 : 5.

There are 40 counters.

How many are blue?

3 Explain why 4 : 6 and 6 : 9 are equivalent ratios.

4 Ali and Ben share money in the ratio 5 : 3.

Ali gets £24 more than Ben.

How much money is shared?

5 $a : b = 2 : 3$ and $b : c = 4 : 5$

Show that $a : c = 8 : 15$.

6 Concrete uses cement : sand : gravel = 1 : 2 : 4.

Jo has 50 kg of cement and plenty of sand and gravel.

What is the most concrete she can make?

7 Boys : girls in a club = 3 : 4.

After 6 more boys join, the ratio is 1 : 1.

Show that there were 18 boys at first.

8 A : B = 2 : 5.

12 is added to both, and the ratio becomes 4 : 7.

Find A.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 1

Ratio problems

1 5 parts = £60, 1 part = £12

£24 and £36

2 8 parts = 40

25 blue

3 **Both simplify to 2 : 3.**

4 2 parts = £24, 1 part = £12

£96

5 $a : b = 8 : 12$, $b : c = 12 : 15$

$a : c = 8 : 15$

6 1 part = 50 kg

7 parts

350 kg

7 $3x + 6 = 4x$

$x = 6$

3 × 6 = 18 boys

8 $7(2x + 12) = 4(5x + 12)$

$14x + 84 = 20x + 48$

$x = 6$

A = 12

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