GCSE FOUNDATION · REVISION MAT 5

Multiplicative relationships

1 Hal has 9 stickers. Isa has 54 stickers.

(a) How many times as many stickers does Isa have?

(b) Write the ratio Hal : Isa in its simplest form.

2 A is $\frac{7}{10}$ of B.

$B = 80$

Work out the value of A.

3 Uli earns £420 a week. Val earns £560 a week.

Show that Uli earns $\frac{3}{4}$ of what Val earns.

4 A drink is made from water and bleach in the ratio 8 : 1.

Is this the same as saying the amount of bleach is $\frac{1}{8}$ of the amount of water?

Explain your answer.

5 The length of a rectangle is 2 times its width.

The perimeter of the rectangle is 54 cm.

Work out the area of the rectangle.

6 Ann has 3 times as many marbles as Bob.

Cal has $\frac{2}{3}$ as many marbles as Ann.

They have 60 marbles altogether.

How many marbles does each person have?

Mr&Mrs MATHS

ANSWERS · REVISION MAT 5

Multiplicative relationships

1 (a) **6** times

(b) **1 : 6**

2 80 ÷ 10 × 7 = **56**

3 $\frac{420}{560} = \frac{3}{4}$ ✓

4 **Yes**. For every 8 parts of water there is 1 part of bleach, so bleach = $\frac{1}{8}$ × water.

5 Width w, length $2w$: $2(w + 2w) = 6w = 54$

$w = 9$ cm, length = 18 cm

Area = **162 cm^2**

6 Bob x, Ann $3x$, Cal $2x$

$6x = 60$, so $x = 10$

Bob **10**, Ann **30**, Cal **20**