GCSE FOUNDATION · REVISION MAT 1

Multiplicative relationships

1 Jo has 12 stickers. Ben has 36 stickers.

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

(b) Write the ratio Jo : Ben in its simplest form.

2 A is $\frac{2}{5}$ of B.

$B = 45$

Work out the value of A.

3 Mia earns £300 a week.
Leo earns £450 a week.

Show that Mia earns $\frac{2}{3}$ of what Leo earns.

4 A drink is made from tea and milk in the ratio 5 : 1.

Is this the same as saying the amount of milk is $\frac{1}{5}$ of the amount of tea?

Explain your answer.

5 The length of a rectangle is 2.5 times its width.

The perimeter of the rectangle is 56 cm.

Work out the area of the rectangle.

6 Ann has 3 times as many marbles as Bob.

Cal has $\frac{1}{2}$ as many marbles as Ann.

They have 66 marbles altogether.

How many marbles does each person have?

Mr&Mrs MATHS

ANSWERS · REVISION MAT 1

Multiplicative relationships

1 (a) **3** times

(b) **1 : 3**

2 $45 \div 5 \times 2 = \mathbf{18}$

3 $\frac{300}{450} = \mathbf{\frac{2}{3}}$ ✓

4 **Yes**. For every 5 parts of tea there is 1 part of milk, so milk = $\frac{1}{5}$ × tea.

5 Width w, length $2.5w$: $2(w + 2.5w) = 7w = 56$

$w = 8$ cm, length = 20 cm

Area = **160 cm^2**

6 Bob x, Ann $3x$, Cal $1\frac{1}{2}x$

$5\frac{1}{2}x = 66$, so $x = 12$

Bob **12**, Ann **36**, Cal **18**

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