GCSE FOUNDATION · REVISION MAT 1

Primes, factors and multiples

1 Write down all the factors of 36.

2 Write 60 as a product of its prime factors.

3 Jo says,

"51 is a prime number."

Explain why Jo is wrong.

4 (a) Show that the highest common factor of 24 and 36 is 12.

(b) Find the lowest common multiple of 24 and 36.

5 Bus A leaves the station every 12 minutes.

Bus B leaves the station every 20 minutes.

Both buses leave together at 9:00.

When will they next leave together?

6 Amir has 48 pencils and 60 rubbers.

He puts them all into identical gift bags with nothing left over.

What is the greatest number of bags he can make?

How many of each item is in each bag?

Mr&Mrs MATHS

ANSWERS · REVISION MAT 1

Primes, factors and multiples

1 **1, 2, 3, 4, 6, 9, 12, 18, 36**

2 **$2^2 \times 3 \times 5$**

3 $51 = 3 \times 17$

It has factors other than 1 and itself, so it is **not prime**.

4 (a) $24 = 2^3 \times 3$
$36 = 2^2 \times 3^2$

Common factors give **12**

(b) **72**

5 Multiples of 12: 12, 24, 36, 48, 60

Multiples of 20: 20, 40, 60

LCM = 60 minutes, so **10:00**

6 HCF of 48 and 60 = 12

12 bags, each with **4 pencils** and **5 rubbers**