GCSE FOUNDATION · REVISION MAT 2

Primes, factors and multiples

1 Write down all the factors of 42.

2 Write 84 as a product of its prime factors.

3 Sam says,

"57 is a prime number."

Explain why Sam is wrong.

4 (a) Show that the highest common factor of 30 and 45 is 15.

(b) Find the lowest common multiple of 30 and 45.

5 Bus A leaves the station every 15 minutes.

Bus B leaves the station every 25 minutes.

Both buses leave together at 8:30.

When will they next leave together?

6 Amir has 72 sweets and 90 stickers.

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 2

Primes, factors and multiples

1 **1, 2, 3, 6, 7, 14, 21, 42**

2 **$2^2 \times 3 \times 7$**

3 $57 = 3 \times 19$

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

4 (a) $30 = 2 \times 3 \times 5$

$45 = 3^2 \times 5$

Common factors give **15**

(b) **90**

5 Multiples of 15: 15, 30, 45, 60, 75

Multiples of 25: 25, 50, 75

LCM = 75 minutes, so **9:45**

6 HCF of 72 and 90 = 18

18 bags, each with **4 sweets** and **5 stickers**