GCSE FOUNDATION · REVISION MAT 3

Primes, factors and multiples

1 Write down all the factors of 30.

2 Write 126 as a product of its prime factors.

3 Priya says,

"91 is a prime number."

Explain why Priya is wrong.

4 (a) Show that the highest common factor of 28 and 42 is 14.

(b) Find the lowest common multiple of 28 and 42.

5 Bus A leaves the station every 18 minutes.

Bus B leaves the station every 24 minutes.

Both buses leave together at 7:45.

When will they next leave together?

6 Amir has 56 red beads and 84 blue beads.

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 3

Primes, factors and multiples

1 **1, 2, 3, 5, 6, 10, 15, 30**

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

3 $91 = 7 \times 13$

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

4 (a) $28 = 2^2 \times 7$

$42 = 2 \times 3 \times 7$

Common factors give **14**

(b) **84**

5 Multiples of 18: 18, 36, 54, 72

Multiples of 24: 24, 48, 72

LCM = 72 minutes, so **8:57**

6 HCF of 56 and 84 = 28

28 bags, each with **2 red beads** and **3 blue beads**