GCSE FOUNDATION · REVISION MAT 5

Primes, factors and multiples

1 Write down all the factors of 45.

2 Write 132 as a product of its prime factors.

3 Ruby says,

"119 is a prime number."

Explain why Ruby is wrong.

4 (a) Show that the highest common factor of 18 and 30 is 6.

(b) Find the lowest common multiple of 18 and 30.

5 Bus A leaves the station every 14 minutes.

Bus B leaves the station every 21 minutes.

Both buses leave together at 6:50.

When will they next leave together?

6 Amir has 64 apples and 96 oranges.

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 5

Primes, factors and multiples

1 **1, 3, 5, 9, 15, 45**

2 **$2^2 \times 3 \times 11$**

3 $119 = 7 \times 17$

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

4 (a) $18 = 2 \times 3^2$

$30 = 2 \times 3 \times 5$

Common factors give **6**

(b) **90**

5 Multiples of 14: 14, 28, 42

Multiples of 21: 21, 42

LCM = 42 minutes, so **7:32**

6 HCF of 64 and 96 = 32

32 bags, each with **2 apples** and **3 oranges**

Mr&Mrs MATHS