GCSE FOUNDATION · REVISION MAT 4

# Primes, factors and multiples

**1** Write down all the factors of 48.

**2** Write 90 as a product of its prime factors.

**3** Leo says,

"87 is a prime number."

Explain why Leo is wrong.

**4** (a) Show that the highest common factor of 40 and 60 is 20.

(b) Find the lowest common multiple of 40 and 60.

**5** Bus A leaves the station every 16 minutes.

Bus B leaves the station every 20 minutes.

Both buses leave together at 10:15.

When will they next leave together?

**6** Amir has 45 pens and 75 notebooks.

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 4

# Primes, factors and multiples

**1** **1, 2, 3, 4, 6, 8, 12, 16, 24, 48**

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

**3** $87 = 3 \times 29$

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

**4** (a) $40 = 2^3 \times 5$

$60 = 2^2 \times 3 \times 5$

Common factors give **20**

(b) **120**

**5** Multiples of 16: 16, 32, 48, 64, 80

Multiples of 20: 20, 40, 60, 80

LCM = 80 minutes, so **11:35**

**6** HCF of 45 and 75 = 15

**15 bags**, each with **3 pens** and **5 notebooks**