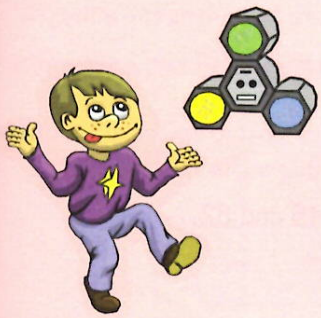
4. a Check that each number in Q3 had an **ODD** number of factors.

b What is the special name for these numbers ? {4, 9, 16, 25, 36, ...}

c Explain why there will always be an odd number of factors for this type of number.

5. 

At a night club, the green light flashes every **4** seconds, the yellow light flashes every **8** seconds and the blue light flashes every **10** seconds.

At a certain moment in time, all 3 lights flash at the same time.

a How many seconds pass before they all flash together again ?

b When is the next time after that they flash together again ?

6. Three buses leave Buchanan Street Bus Station every morning.

The Arbroath bus leaves every **2** hours, the Skye bus every **3** hours and the John O'Groats bus every **4** hours.

a The 3 buses all leave together at 6 am. When is the next time they leave at the same time bound for these destinations ?

b What time after that will another three leave the bus station together ?

7. Four neighbours bought different grass fertilisers to improve their lawns.

Tom bought GreenAll to be applied every **2** days.

Dick bought GreenCut with application every **3** days.

Bunty picked EverGreen, to be put down every **5** days.

Doris chose the **6** day application LawnGreen.

On the evening of the 1st of June, all four applied their lawn food to their front gardens.

a On what date in June was Bunty back out to feed her lawn ?

b On what date were all four neighbours back out together again to apply their fertiliser ?

8. A full revolution is divided into 360 parts. Each part is called "1 degree".

The choice of 360 is no accident.

The reason is that 360 has many factors (**24** in fact) and this means a circle can be divided equally in lots of ways.

Find all 24 **factors** of 360.