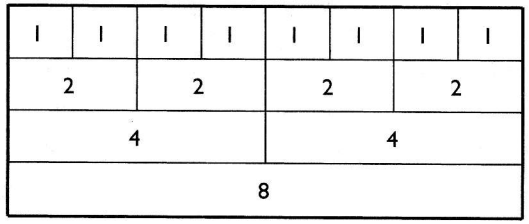
The kind of task a teacher might engage a class with in order to help students understand the concept of divisor will be varied. Below I offer two approaches.

1 One teacher I worked with begins lessons on divisors by writing a number such as 20 on the board. She then asks individuals to call out another number and to each she offers one of two responses: '*Yes – I like that number*' or '*No – I don't like that number*'. Whether she says 'Yes' or 'No depends upon whether the numbers students call out are or are not a divisor of 20. The idea is for the students to determine why their teacher says 'Yes' or 'No'. This encourages a sense of puzzlement and creates a positive atmosphere.
2 Another approach is an idea offered to me by Emma Kearns, a former PGCE student I had the pleasure to work with.

The idea is based upon attributing each number with a certain amount of strips of paper. For example, eight has four strips of paper, folded as follows:



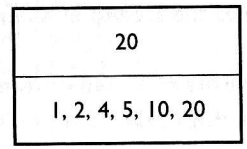
This may help to explain why the number eight has four divisors, 1, 2, 4 and 8.

The question *How many strips of paper do other numbers have*? can now be posed.

As students begin to make sense of the concept of divisors there are several tasks which students can explore to practise their mental arithmetic and become more confident with their recall and knowledge of divisors. Further ideas appear on the following pages.

This task might be carried out in small groups and requires a simple resource of twenty or so pieces of card, each group being given a random selection of numbers between 1 and 100.

Each number is then written on a separate piece of card and the space underneath each number is left blank for students to fill in. I make the card sufficiently large with the intention of creating a display. For example:



Clearly the example above is a 'cleaned' up, ordered version showing the divisors of 20; students can be encouraged to calculate the divisors before committing their answers to the pieces of card.

At some point a selection of cards from each group showing all the numbers and their divisors from 1 to 100 can be displayed and this can be used as a resource for a whole-class discussion as well as an *aide-mémoire*.

Once a 'working knowledge' of divisors has begun to emerge there are a range of tasks for students to work on. For example:

- list all the numbers with exactly two divisors (prime numbers);
- list all the numbers with an odd amount of divisors (square numbers);
- max factor – find (say) the five numbers which have the highest amount of divisors (up to 100);
- splitting numbers into their prime factors (leading to preliminary work on indices).