

Lesson 5

The Times Tables

This is the quick guide to the video. For more complete details watch video 5.

Goal:

- To be able to write out the times tables in a flash

Method:

By this stage it is assumed that you can subtract single digit numbers repeatedly quite quickly and easily. This ability means you can write out the times table.

For the 9 times tables we know $10 \times 9 = 90$ (just put a 0 on the end of 9).

For the 8 times tables we know $10 \times 8 = 80$ (just put a 0 on the end of 8).

For the 7 times tables we know $10 \times 7 = 70$ (just put a 0 on the end of 7) and so on.

Using those start points allows us to write out any of the tables quickly.

For example, starting from $10 \times 9 = 90$ simply repeatedly subtract 9 until you reach zero:

90 // this is 10 nines
81 // if we take 9 off 10 nines we must have 9 nines
72 // if we take another 9 off from 9 nines we must only have 8 nines
63 // this will be 7 nines (i.e. $7 \times 9 = 63$)
54 // etc.
45
36
27
18
09
00

These are the answers to the times tables because the times tables are nothing more than repeated addition.

The formal tables can now be filled in if desired:

$$\begin{aligned} 10 \times 9 &= 90 \\ 9 \times 9 &= 81 \\ 8 \times 9 &= 72 \\ 7 \times 9 &= 63 \\ 6 \times 9 &= 54 \\ 5 \times 9 &= 45 \\ 4 \times 9 &= 36 \\ 3 \times 9 &= 27 \\ 2 \times 9 &= 18 \\ 1 \times 9 &= 09 \\ 0 \times 9 &= 00 \end{aligned}$$

Likewise starting from $10 \times 8 = 80$ and then repeatedly subtracting 8 would give the 8 x Table and so on.

The result is that if one can subtract quickly and easily, then the times tables can be written out in seconds.