

Week beginning 25.01.21

Trebling

$$\begin{array}{r} 1 \ a \ b \ c \ d \ e \\ \times \\ \hline a \ b \ c \ d \ e \ 1 \end{array}$$

$$\begin{array}{r} 2 \ f \ g \ h \ i \ j \\ \times \\ \hline f \ g \ h \ i \ j \ 2 \end{array}$$

Can you replace the letters with numbers?
Is there only one solution in each case?

Once you've had a chance to think about it, have a look below to see how two different pupils began working on the task.

Try it yourself once first. Working in a systematic way will be the best option.

Here is Abdullah's work:

"For each problem I first looked to find a number that would make the ones column accurate, then I substituted the number for the answer in the tens column and then continued the process until the calculation was complete."

Joshua wrote:

"I wrote out single digit multiples of three up to 9 because each letter was one digit. I noticed that the numbers 1 to 9 only appeared once in the ones column of the answers. I looked at the question and realised that $3 \times e$ had to be 21 because it was the only answer ending in 1. This meant that e had to be 7.

I carried the 2 and took it from 7 (the other e) and got 5. So $d \times 3$ had to end in 5 which meant d had to be 5 because $5 \times 3 = 15$. I then repeated the process."

Can you take each of these starting ideas and develop it into a solution?