

The name: The Pattern

The digits for the final answer add up to 18 as well as the first and second columns for the addition.

$$\begin{array}{r} 2912 \\ - 327 \\ \hline 2585 \end{array}$$

$$\begin{array}{r} 1090 \\ + 900 \\ \hline 1990 \end{array}$$

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The biggest number is at the top and the smallest is at the bottom.

$$\begin{array}{r} 123 \\ - 321 \\ \hline 812 \end{array}$$

$$\begin{array}{r} 392 \\ - 293 \\ \hline 999 \end{array}$$

$$\begin{array}{r} 856 \\ - 586 \\ \hline 270 \end{array}$$

A carry occurs because the end digit is somehow always smaller than the end digit for the second number

$$\begin{array}{r} 392 \\ - 293 \\ \hline 999 \end{array}$$

I am not sure on the pattern solution but this is what I noticed

$$\begin{array}{r} 856 \\ - 658 \\ \hline 198 \end{array}$$

This happens because you have to reverse the numbers putting the number at the end

$$\begin{array}{r} 723 \\ - 327 \\ \hline 396 \end{array}$$

Does it work with 2 digits?

Yes, here is 3 examples

$$\begin{array}{r} 812 \\ - 219 \\ \hline 593 \end{array}$$

$$\begin{array}{r} 99 \\ - 37 \\ \hline 62 \end{array}$$

$$\begin{array}{r} 63 \\ + 43 \\ \hline 106 \end{array}$$

Always get the answer 63 and 36

$$\begin{array}{r} 71 \\ - 48 \\ \hline 23 \end{array}$$

$$23 + 63 = 86$$

What about 4 digits?

Yes, here are 3 examples

$$\begin{array}{r} 8136 \\ - 6738 \\ \hline 1398 \end{array}$$

$$\begin{array}{r} 3111 \\ - 1243 \\ \hline 1868 \end{array}$$

$$\begin{array}{r} 2178 \\ - 8136 \\ \hline 6142 \end{array}$$

All different

$$\begin{array}{r} 38913 \\ - 39184 \\ \hline 0909 \end{array}$$

When a subtraction occurs a carry occurs. The middle digit is always 9 in the addition.

$$\begin{array}{r} 856 \\ - 658 \\ \hline 198 \end{array}$$

$$\begin{array}{r} 1091 \\ + 891 \\ \hline 1982 \end{array}$$

All I know is it has to do with the 9 and 18 in each calculation.

But the big questions are... why is it always what is the significance of 9

This has all got to do with the number 9