

# NRich: Two & Two

17<sup>th</sup> of May

The number ~~Two~~ has to be an even number because any number  $\times 2$  has to be even.

$$\begin{array}{r} \text{TWO} \\ + \text{TWO} \\ \hline \text{FOUR} \end{array}$$

Both the same number

$$\begin{array}{r} 734 \\ + 734 \\ \hline 1468 \end{array}$$

all Os are the same

the hundreds place also needs to add up to 10 or more but less than 20 otherwise the answer would be only 3 digits.

Answer:

$$\begin{array}{r} 7343 \\ + 734 \\ \hline 14681 \end{array}$$

How we worked it out:

Me and my partner Lucy used the ~~partial~~ trial and error strategy to get our answer (see left). We would start with a number that we thought was right, then <sup>we</sup> checked ~~and~~ it and would change/swap some numbers around.

Some other solutions

$$\begin{array}{r} 765 \\ + 765 \\ \hline 1530 \end{array}$$

$$\begin{array}{r} 734 \\ + 734 \\ \hline 1468 \end{array}$$

We ~~can~~ can be sure that we have found all solutions (which we have not.)  
By using all digits from 0-9.

~~$$\begin{array}{r} 652 \\ + 652 \\ \hline 1304 \end{array}$$~~