

Close to 9000



Take four copies of the number 1234.
Re-arrange the digits in each number so that the
four numbers sum as close as possible to 9000.

90000?

$$\begin{array}{r} 1234 \\ 1234 \\ 1234 \\ + 1234 \\ \hline 4946 \end{array}$$

90000?

$$\begin{array}{r} 4321 \\ 3241 \\ 1234 \\ + 1234 \\ \hline 10030 \end{array}$$

It is impossible to get the total be exactly 9000.
Can you show this?

Hint

X

Always, sometimes or never true?



$$\begin{array}{r} ABC \\ DEF \\ + GHI \\ \hline \end{array} = \begin{array}{r} DEI \\ GHC \\ + ABF \\ \hline \end{array}$$

$$\begin{array}{r} ABC \\ DEF \\ + GHI \\ \hline \end{array} = \begin{array}{r} BAC \\ EFD \\ + IGH \\ \hline \end{array}$$

If a statement is “sometimes true”, determine which values of the letters it is true for.

Write a number...



Write a number which satisfies each set of the given properties.

A multiple of 7
An even
number

A multiple of 9
An odd number
Greater than 40

A multiple of 2
NOT a multiple
of 4

A multiple of 5
A multiple of 3
Greater than 20

A multiple of 2
A multiple of 3
Greater than 30

A multiple of 3
NOT a multiple
of 9
Greater than 35

Number Sort



	Square number	Multiple of 5	Factor of 48	Factor of 24
Odd				
Even				
Multiple of 3				
Factor of 100				

9 100 15 8 24 35 6 3

49 25 36 4 2 1 10 12