

February 24th

Choose a pair of integers between 0 and 10. (e.g. 3 and 9)

Find their sum S ($3 + 9 = 12$)

Now find the sum, T , of the two numbers formed by the two integers ($39 + 93 = 132$)

Explain why T is always a multiple of S .



If the pair of integers are p and q .

Then $S = p + q$

$T = 10p + q + 10q + p$

$= 11p + 11q$

$= 11(p + q)$

So $T = 11 \times S$ for all single digit p and q