



Problem of the Week

Problem B

Nein!

In the table, the first column contains a number n , where n goes from 2 to 10.

Complete the table as follows:

- in the next two columns, write the tens digit and the ones digit of the product p where $p = 9 \times n$;
- in the fourth column, write the difference, d , between the number n and the tens digit of p . That is, $d = n - \text{tens digit of } p$; and
- in the last column, write the sum, S , of the tens and ones digits of the product p .

n	$p = 9 \times n$		difference	sum
	tens	ones	d	S
2	1	8	$2 - 1 = 1$	$1 + 8 = 9$
3				
4				
5				
6				
7				
8				
9				
10				

Answer the following questions by making observations from the completed table.

- What is a good way to find the tens digit of the product p ?
- What is a good way to determine the ones digit of the product p ?
- What other interesting patterns do you see in the table?

