



Write a number.  
 Add 25 to it.  
 Multiply by 2.  
 Subtract 4.  
 Divide by 2.  
 Subtract your first number.

4	8	1	3
4	8	3	8
9	6	7	6
9	6	7	2
4	8	3	6
		2	3

Now you try starting with some different numbers.

Write a number.  
 Add 25 to it.  
 Multiply by 2.  
 Subtract 4.  
 Divide by 2.  
 Subtract your first number.


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*Explain how this number magic works.*

ANSWER

Explanation

It doesn't matter what number you write at the beginning as you subtract your first number at the end so it cancels it out.

If you added 25 and subtracted 2 everytime it would lead you quickly to the (23) answer, but this operation is disguised

by  $\times 2$  (doubling) = 50 then subtract 4 = 46

When you divide 46 by 2 you are left with 23

$25 - 2 = 23$   
but doubled  
 $\rightarrow 50 - 4 = 46$  REVERSED BACK to {23} when you  $\div 2$  later.

The doubling then halving later on cancel each other out. Clever eh? 😊

People would spot the trick really quickly!