Determine the smallest odd positive integer n which is a multiple of 7 and for which the division by 6, 5, 4 and 3 yields a remainder of 1.

Let for , s.t.

*→  
2k=6b  
2k=5c  
2k=4d  
2k=3e*

The solution to is clearly

\*Now we set and we need to solve

We have for

For we get

So the odd number we wanted is 301.

\* We set 61 because we don’t want to lose the result of LCM(6,5,4,3), and 60x because it will keep our previous result because of the LCM.

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