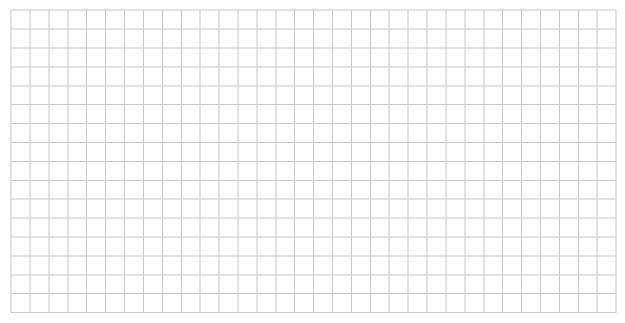
Question 5

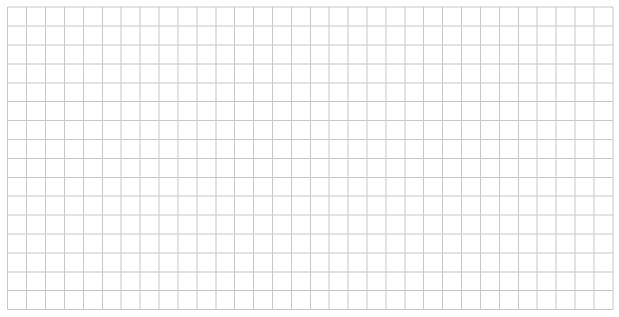
(a) The Sieve of Sundaram is an infinite table of arithmetic sequences.The terms in the first 4 rows and the first 4 columns of the table are shown below.

4	7	10	13	
7	12	17	22	
10	17	24	31	
13	22	31	40	

(i) Find the **difference** between the **sums** of the first 45 terms in the first two rows.



(ii) Find the number which is in the 60th row and 70th column of the table.



(b) The first two terms of a sequence are $a_1 = 4$ and $a_2 = 2$. The general term is defined by $a_n = a_{n-1} - a_{n-2}$, when $n \ge 3$. Write out the next 6 terms of the sequence **and hence** find the value of a_{2019}

