

$x, i, o, u$

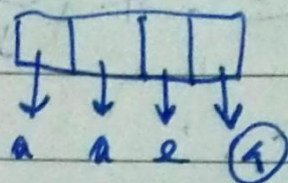
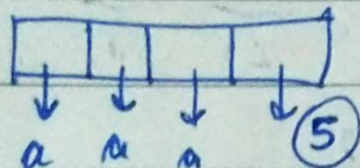
classmate

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$$n = 4$$

start  $\rightarrow a$



$$5 + 4 + 3 + 2 + 1$$

start  $\rightarrow e$

$$4 + 3 + 2 + 1$$

start  $\rightarrow i$

$$3 + 2 + 1$$

$o$

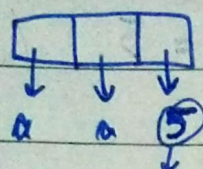
$$2 + 1$$

$u$

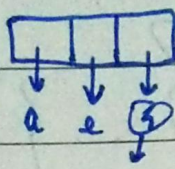
$$1$$

5	}	10	
15	}	20	
35	}	35	
70	}	46	
126	}		

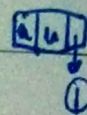
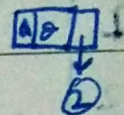
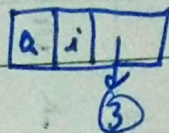


$n = 3$ 

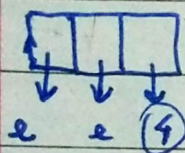
a, e, i, o, u



e, i, o, u



$$5 + 4 + 3 + 2 + 1 = 15$$



e i → 3

e o → 2

e u → 1

$$4 + 3 + 2 + 1 = 10$$

o o

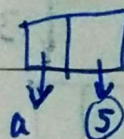
$$3 + 2 + 1$$

i i

$$2 + 1$$

u u

$$1$$

 $n = 2$ 

e (4)

i (3)

o (2)

u (1)

$$= 15$$

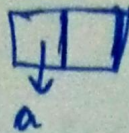
for  $n$  in range  $(1, N+1)$ :

$$s += \frac{n(n+1)}{2}$$

$$n = 3 \rightarrow 35$$



n=2



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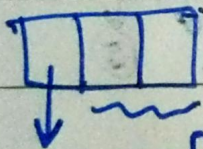
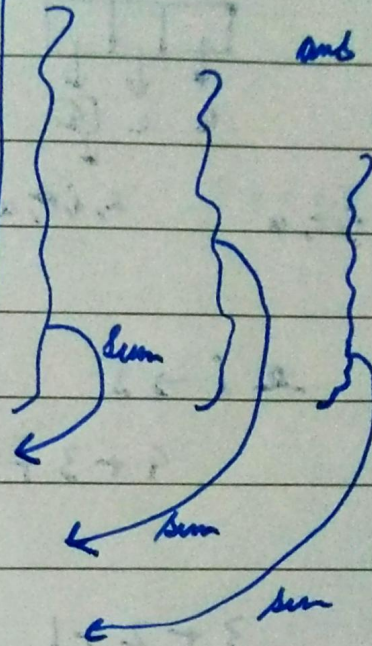
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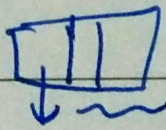
n	prev	ans
2	a	5
2	e	4
2	i	3
2	o	2
2	u	1
3	a	15
3	e	10
3	i	6
3	o	3
3	u	1

n=1, prev = null

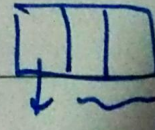
ans = 5



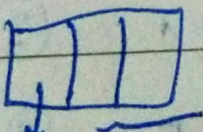
a ans[(2, a)]  
+ ... ans[(2, u)]



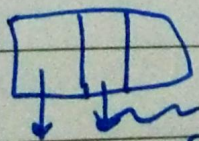
e ans[(2, e)]



i ans[(2, i)]

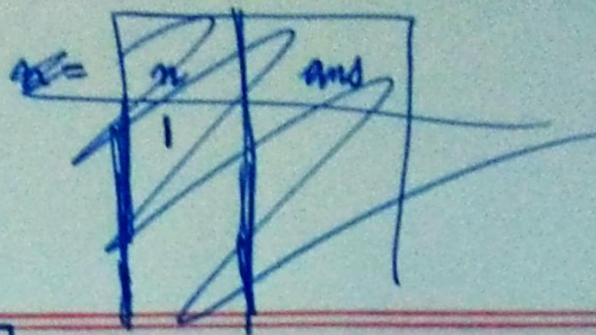


o ans[(2, o)]



u ans[(2, u)]





[1, 3, 6, 10, 15]

$$dp[3,1] = dp[2,1] + dp[2,2] + \dots + dp[2,5]$$

$$dp[3,2] = dp[2,2] + \dots + dp[2,5]$$

encode  $\rightarrow$

$$n * 10 + (1, 2, 3, 4, 5)$$