1	Page No
	Pre computation (2D ARRAY)
ற்	Given 2D array of N*N integery. Given a queries and in each query o, b, c and d. Print
1,43	Sum of rectangle terpresented by (a, b) as top left point and (c, d) as top botton right
	point.
	Constraints:
	$1 \leq \alpha \leq 10^{3}$
	$1 \leq 0, b, c, d \leq N$
	41 3 NCLUDE < 8339/33DC++.4>
2 + 6	243 AR[N][N];
	3NS WAIN()
	347 m;
7.4	FOR (347 1=1; i < 7; i++)
71	for (327)=1; 31<001; j+1)
2	CIN >> ARR[i][j];
	the A. A. S. San Balancia and C. San Balancia and C. S. San Balancia and C. San

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		Date
	313 A: A44 036 M.C. L. Land	du/6021211
	3N7 0;	
	C3N >> Q;	C william Co
Living	HHILE (O =)	pi box
Ž.	HHILE (1845)	1900
n/a?	3N7 A, B, C, D;	int the
t.	(2.10 N) A 33 B 27 C	thing.
-	LONG LONG SUM = 0; i < C; i++) FOR (3N3 i=A; i < C; i++)	(thinks)
	FOR (3N3 j=B; j < D; j++) 11 = 1
	FOR (3N7)=0,	110
1	Sum += AR[i][j];	8 31
	SUM += MRLLING	4,0
	coup << Sum << ENDL;	
	COU? << SUM	3009767 #
		months Destill
-	11 Prime complexity -> 0 (N2) +	$O(8xN^2) = 2$
***	1) lune completing	120 St
	So, it will give ?LE.	
	Jon 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	GERM SUIT
- 17	RETURN O;	
	}	Story
	; h	TE (F)
	If He can prevent of it prior ?! forefix sum method. Prefix s storing values beforehand testing	they want
	poulia sum melhod. Prufix s	um is tait
	storing values beforehand testing	ow) less
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
	Optimized Solution:	
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0	Approach to store values:
	1 2 3 4 5
1	tt// 3 \$ Let us arrunge we want to
2	Store value at (3,3).
3	. The value will consust of
Ч	gum of (1,1) to (3,3)
5	We can achieve this by taking
	sum till (2,3) and (3,2) and subtract till
	(2,2) as it has come truce
-	: PF[3][3] = O[3][3] + PF[2][3] + PF[3][2]
	- PE[2][2]
-	(+1): m > 1: 101 545) aci
	· General Josemula:
1	
	This formula will north directly as me are taking indexing from (1,1).
(5)) Approach to get values:
	1 2 3 4 5 3 (0-116-1)
The state of the s	Let us arrume we want so sum (a-1,d) from (a,b) to (c,d). (a-1,d) from (a,b) to (c,d). (a-1,d) will take sum till (c,d) when sub. till (a-1,d) and (c,b-1) (c,d) ((a,b-1)) and add (a-1,b-1) as it has been subtracted truice.
1 An	as it has been subtracted truice.

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	:. PESCO(d) = My=>~ PETC](d) = PECa=1)[d]- PE[c][b-1] + PE[a-1][b-1]	_
		_
at to	# 3NCLUDE < B333 S3DC++. h>	
	USZNY MAMESPACE BRD;	
- to the	CONST 3N7 N= 1123+10;	0
(8.8)	TUT AR [W] [W] TUT	
1 2 7	LONG LONG PETNOTUNGS	
gut to	the box (S. F) has (E. C) the must	
	BUZ MAZN() and the co. (C.C.)	-
[s][s]	37 +367 7 199 + [E][E] + PE[7 199	-
	(3N >> n;	4
	FOR (347 i=1; i < m; i++)	Town or the second
	(almost latengther)	T.
F. 13/-24	FOR (3N7 j=1; j < n; j++)	H
7.	CTW >> AR[i][j]; [/-:/]	100
	the state of the s	4
	PE[i][j] = AR[i][j] + PE[i-1][j]+	
46.6	0 PE[i][j-1]-PE[i-i][j-1];	
	3 m. (/ell sell for cont on the	
	Charleton of the contract of t	4.
	1N7 A;	-
	C3N >> 0;	
	MHILE (O)	1
4	2) Ent (2,0) mort "")	
set trait	1277 A, B, C, D;	
	(3N >> A >> B >> C >> D;	-
() 1	(OUZ KG PF [C] [B] - PF [Q - 1][D] - PF [C] [B-U	1000
0.1-0)	peo po tipp [a-1][B-1] << GNDL;	1
this.	Interested part to the guidenated	
age of the control frage.	The state of the s	

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3 despiration between
 1) Pringe complexity -> O(N2) + O(a) == 106 + 105
 1) Prime complexity -> O(N2) + O(a) == 106 + 105 == 106 So, it mon't give TLE.
0
RETURN 0;