PAGE NO. :
DATE : / /

$A = 3, 1, 5, 2, 7$ & $k = 3$

⇒ firstly we'll see for $k = 2$

$B = \underline{3}\ \underline{1}\ 5\ \underline{2}\ 7\ \ \underline{3}\ \underline{1}\ 5\ \underline{2}\ 7$

⇒ Consider '5' it is greater than '3', '1', and '2'. But 3, 1 comes before.

(within array) before number ⇒ $m = 2$ (3 & 1)
after " ⇒ $n = 1$ (2)

∴ for 5 $(m, n) = 2, 1$

∴ No. of ordered Pair for first '5' is $= \boxed{k \times n + (k-1)m}$

$2 \times (1) + (2-1) \times 2$

$= \boxed{4}$

∴ ~~No. of~~

for no. of ordered pair for next '5' replace k with $k-1$, and we'll go so on, till $(k-1)$ becomes zero.

PAGE NO.:
DATE: / /

So, for every number :-

	(m, n)
3	(0, 2)
1	(0, 0)
5	(2, 1)
2	(1, 0)
7	(4, 0)

$(M, N) \Rightarrow \underline{(7, 3)}$

$(K = 2) \downarrow$

$[N \times K + M(K-1)] + [N(K-1) + M(K-2)]$

$= 3 \times 2 + 7 \times (1) + 3(1) = \boxed{16}$

General Soln :-

$[N(K) + M(K-1)] + [N(K-1) + M(K-2)]$

$+ [N(K-2) + M(K-3)] + \ldots 0$

$$\therefore = \boxed{\frac{N(K)(K+1)}{2} + \frac{M(K)(K-1)}{2}}$$

in Our soln (.cpp)

$a \rightarrow N$

$b \rightarrow M$