

# Question: 01

There are two sequences X and Y. One another sequence Z such that

$$Z(k) = \sum X(n) * Y(n-k), \quad \text{for } n=1 \text{ to } m$$

where ,  $m = \max(\text{length}(X), \text{length}(Y))$ ;  $m \geq 1$

$\text{length}(Z) = 2 * m - 1$ ;

$k = -(m-1) \text{ to } (m-1)$ ;

$p = \text{abs}(Z(i) + Z(j))$ ;  $i \neq j$ ; (p= absolute sum of two element of array Z);

you have to find maximum value of p ;

## Input:

t =number of test case;

x =first sequence;

y =second sequence;

**Output:** maximum possible value of p;

## Sample input:

2

[ 1 2 3 4 ]

[ -1 2 1 -1 ]

[ -2 5 -4 ]

[ 2 3 2 7 ]

## Sample output:-

13

38

Note:- In second case  $z = [-14 \ 31 \ -24 \ 3 \ -2 \ -8]$  ,  $p = \text{abs}(-24 + (-14)) = 38$