

# Question: 01

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

$$Z(k) = \sum X(n) * Y(n-k),$$

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

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

$k = -(m-1)$  to  $(m-1)$ ;

$p = \text{mod}(Z(i) + Z(j))$ ;  $i \neq j$ ; ( $p = \text{Mod of some of two element of array } Z$ );

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  $z = [-14 \ 31 \ -24 \ 3 \ -2 \ -8]$  ,  $p = \text{mod}(-24 + (-14)) = 38$