

# Minimum Difference among K

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Given an array of  $n$  integers and a positive number  $k$ . We are allowed to take any  $k$  integers from the given array. The task is to find the minimum possible value of the difference between maximum and minimum of  $k$  numbers.

## Input:

The first line of input contains an integer  $T$  denoting the number of test cases. Each test case contains two integers  $n$  and  $k$  where  $n$  denotes the number of elements in the array  $a[]$ . Next line contains space separated  $n$  elements in the array  $a[]$ .

## Output:

Print an integer which denotes the minimum difference achieved.

## Constraints:

$1 \leq T \leq 50$

$1 \leq n \leq 1000$

$1 \leq a[i] \leq 100000$

$1 \leq k \leq 1000$

## Example:

### Input:

2

7 3

10 100 300 200 1000 20 30

10 4

1 2 3 4 10 20 30 40 100 200

### Output:

20

3