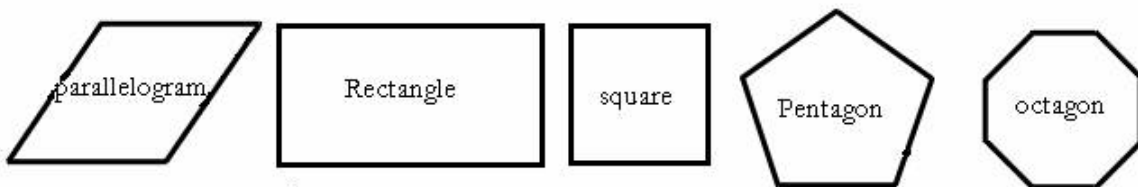


A polygon is a plane figure that is bounded by a closed path and composed of a finite sequence of straight line segments. These segments are called its edges, and the points where two edges meet are the polygon's vertices.



You have got a set of  $N$  sticks of various lengths. How many ways can you choose  $K$  sticks from this set and form a polygon with  $K$  sides by joining the end points.

### Input

The first line of input is an integer  $T$  ( $T < 100$ ) that indicates the number of test cases. Each case starts with a line containing 2 positive integers  $N$  and  $K$  ( $3 \leq N \leq 30$  &  $3 \leq K \leq N$ ). The next line contains  $N$  positive integers in the range  $[1, 2^{31})$ , which represents the lengths of the available sticks. The integers are separated by a single space.

### Output

For each case, output the case number followed by the number of valid polygons that can be formed by picking  $K$  sticks from the given  $N$  sticks.

### Sample Input

```
4
4 3
10 10 20 20
6 4
1 1 1 1 1 1
4 3
10 20 30 100000000
6 6
2 3 4 5 6 7
```

### Sample Output

```
Case 1: 2
Case 2: 15
Case 3: 0
Case 4: 1
```