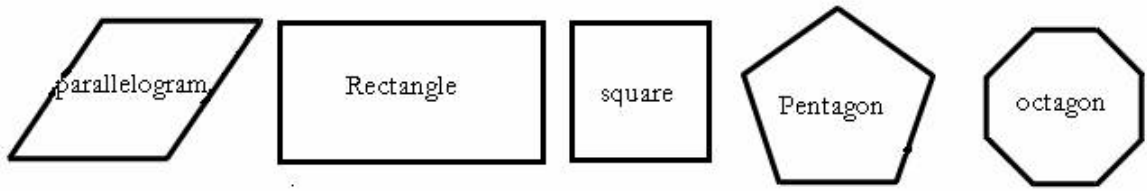


11465 Count the Polygons

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
```