The Road Network

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

AngryBacon, the King of ALU(the Anti Lolicon United), rules a kingdom of n cities with military force. Each city has a parameter w_i that describes the city scale. Two cities i, j are connected by a road if and only if $w_i + w_j \geq d$ for some known constant d.

One night, AngryBacon had a terrible nightmare that some of his cities turned against him because he does not like Loli while some people perceive them as angels, and the kingdom is teared into two halves: the king and the rebel. All the roads between the cities that belong to different sides are destroyed. The rebels are equipped with advanced data structures and his army couldn't even stand a chance. ALU soon falls and become a land of republic and loli.

Now awake and realised it's just a dream that can't be true, AngryBacon starts to calculate the maximum number of roads could be destroyed under such a scenario. And furthermore, how many different situations are there this number can be achieved if any set of city(even the whole kingdom or the empty set) could turn against him at the same time.

Input

The first line contains two integers n, d ($1 \leq n \leq 2000, 0 \leq d \leq 10^9$). n is the number of cities and d is the constant determines the connections between cities.

The second line contains n integers $w_1, w_2, \ldots, w_n$ ($0 \leq w_i \leq 10^9$). w_i is the parameter of the i-th city.

Output

Print a single line contains two integers m and w, where m denotes the maximum number of roads could be destroyed, and m denotes the number of situations are there this number can be achieved.

Examples

standard input	standard output
4 7 1 4 6 3	3 6
4 11 1 4 6 3	0 16
4 5 1 4 6 3	4 2