B: Forming Better Groups

Source file name: better.c, better.cpp, better.java, or better.py Author: Edwin Niño

Prof. Smith is tired of the same old end of semester story: lazy students passing his course thanks to group assignments. Unfortunately, group assignments are an important part of the university policies and Prof. Smith cannot get ride of them. However, he has figured out a strategy that can limit the inclusion of lazy students as members of groups with hardworking students. He wants the lazy students to either work or fail his course.

The crux of the idea is to define a *threshold D* so that the following condition limiting how students participate in groups of *three* members is satisfied:

if G_1 , G_2 , and G_3 are the grades obtained in the previous assignment by three students willing to form a group, then

 $\max (G_1, G_2, G_3) - \min (G_1, G_2, G_3) \le D.$

Prof. Smith wants students to have many options to form groups and choose their teammates. Therefore, he would like to know in advance the number of ways his students could form groups of three members given threshold D and their grades in the previous assignment, while satisfying the condition above.

Please write a program to help Prof. Smith.

Input

The input has several test cases. The first line of a test case consists of two blank-separated integers N ($3 \le N \le 21$) and D ($0 \le D \le 500$), representing the number of students and the threshold, respectively. You can assume that N is a multiple of 3. The second line consists of a blank-separated list of grades G_1, G_2, \ldots, G_N ($0 \le G_i \le 500$, for $1 \le i \le N$) corresponding to the grades of the N students in the previous assignment. The input ends with a line containing two blank-separated zeroes.

The input must be read from standard input.

Output

For each test case, output one line containing one integer: the number of ways the N students can form groups of three members given the threshold D and the grades G_1, G_2, \ldots, G_N in their previous assignment when the above-mentioned condition is enforced.

The output must be written to standard output.

| Sample Input | Sample Output |
|---|---------------|
| 6 3 1 6 3 2 4 5 6 8 1 3 3 3 6 5 9 2 1 2 3 4 5 6 7 8 10 | 2 10 0 |
| 0 0 | |
| | |