The prestigious ICPC is here again. The coaches are busy selecting teams. Well this year, they ha adopted a new policy. Contrary to traditional selection process, where few individual contests are he and the top three are placed in one team the next three in another and so on, this year the coach decided to place members in such a way that the total number of *promising* teams is maximize *Promising* teams are defined as a team having *ability points* of its members adding up to 20 or greate Here *ability point* of a member denotes his capability as a programmer, the higher the better.

Input

There will be as many as 100 cases in the input file. Each case of input has two lines. The first li contains a positive integer, where n indicates the number contestants available for selection. The ne line will contain n positive integers, each of which will be at most 30. End of input is indicated by value of 0 for n.

Output

For every case of input there will be one line of output. This line should contain the case number follow by the maximum number of *promising teams* that can be formed. Note that it is not mandatory assign everyone in a team. Incase you dont know, each team consists of exactly 3 members.

Constraints

- $n \leq 15$

Sample Input

```
9
22 20 9 10 19 30 2 4 16
2
15 3
0
```

Sample Output

```
Case 1: 3
Case 2: 0
```