

Problem E

An Ultra-marathon Game

Input file: *testdata.in*

Time limit: 5 second

Problem Description

An ultra-marathon game is going to begin. In the game, players need to run a different path each day. Suppose the game has totally n paths; each path's score may be different. If a player could not finish a path in a normal time, he gets zero score; if a player finished a path in a normal time, he gets normal score; if a player finished a path in the time which is faster than the normal, he gets doubled score.

Alice wants to join the game. If she run in normal speed, she will get normal score. If she run in full speed, she will get doubled score, but she will need a rest next day (she will get zero score in next path). Because each path has different score, Alice should use full speed in some paths. Write a program to help Alice find the best strategy to earn a best score totally.

Input Format

The input contains several test cases. Each test cases contains two lines. The first line denotes the number of paths, n . The second line has n integers. Every integer denotes a score of a path; the first integer denotes the first path's score; the second denotes the second path's score; and so on. The value of n is between 1 and 40. All the scores are integers between 10 and 100. The last line of input is only one 0 indicating the end of input.

Output Format

For each test case, print the best score totally. The output of each test case should be on a separate line.

Sample Input

```
1
10
2
15 10
2
30 10
3
90 60 10
3
65 50 50
3
40 60 35
0
```

Sample Output

```
20
35
60
210
230
170
```