

제 10 회  
대학생  
프로그래밍  
경시대회



## Problem A

### Three Pin Bowling

Three pins are used for bowling games in ACM village. You are to write a program to compute a score for bowling games in ACM village. There are 10 “frames” in a bowling game. Total score is the sum of every frame’s scores. A player delivers two balls in each of the first nine frames unless a strike is scored. A strike is made when the full setup of 3 pins is knocked down with the first delivery in a frame. A spare is scored when pins left standing after the first delivery are knocked down with the second delivery in that frame. A miss is recorded a player fails to knock down all 3 pins after two deliveries in a frame. In the tenth frame, a player delivers three balls if a strike or spare is scored.

Scoring for each frame:

- Miss: the number of pins knocked down after two deliveries
- Spare: the number of pins knocked down after two deliveries (always 3) + the number of pins knocked down in the next delivery
- Strike: the number of pins knocked down after one delivery (always 3) + the number of pins knocked down in the next two deliveries.

According to the above rules, spare and strike need 1 more delivery and 2 more deliveries each. So, the tenth frame has three deliveries for spare and strike.

For example, a player knocked down 1, 2, 1, 0, 3, 1, 1, 3, 3, 2, 1, 1, 2, 2, 1, 3, 1, 1 pins after 18 deliveries,

1, 2 / 1, 0 / 3 / 1, 1 / 3 / 3 / 2, 1 / 1, 2 / 2, 1 / 3, 1, 1 : each frame are separated by ‘/’

Scores for each frame are 4, 1, 5, 2, 8, 6, 4, 5, 6, 5.

4 / 1 / 5 / 2 / 8 / 6 / 4 / 5 / 6 / 5

So, total score is 46.

Your task is writing a program which reads the number of pins knocked down and calculates the total score. Note that the number of pins knocked down may be wrong. For example, “2, 2” for a frame is wrong: after first delivery, only one pin left standing. You should deal with this case as an error.

### Input

Your program is to read from standard input. The input consists of  $T$  test cases ( $0 < T < 100$ ) and each test case consists of two lines.  $T$  is given in the first line. The first line of each test case contains an integer  $N$  ( $10 < N < 22$ ). In the second line of each test case,  $N$  integers (between 0 and 3 including) are given which represent the number of pins knocked down at every delivery.

제 10 회 대학생 프로그래밍 경시대회

Output

Your program is to write to standard output. Print exactly on line for each test case. The line should contain an integer indicating the total score. If the test case has wrong input, print “error”.

The follwoing shows sample input and output for three test cases.

| Sample Input                        | Output for the Sample Input |
|-------------------------------------|-----------------------------|
| 3                                   | 46                          |
| 18                                  | 90                          |
| 1 2 1 0 3 1 1 3 3 2 1 1 2 2 1 3 1 1 | error                       |
| 12                                  |                             |
| 3 3 3 3 3 3 3 3 3 3 3 3             |                             |
| 12                                  |                             |
| 2 2 3 3 3 3 3 3 3 3 3 3             |                             |