

Manager of ACM-ICPC Thailand Contest Council is planning to buy lands in Phuket to build the office building for national programming skill camp and programming contest that will be held on Phuket regularly in the future. The land price in Phuket is becoming more expensive in every year. The price increases in the exponential growth curves by a factor of year. If the land i whose initial cost is L_i bought in t years from now, its price will be $2x(L_i)^t$. All land prices are different. ACM-ICPC can buy only one land per year. You have to help the manager to buy the lands at lowest price within the budget of 5,000,000 millions baht.

For example, if we want to buy 3 lands with costs 7, 2 and 10 in 3 consecutive years, the total price will be calculated as follow.

$$(2 \times 7) + (2 \times 2^2) + (2 \times 10^3) = 2022 \text{ millions baht}$$

Input

First line of the input contains an integer T ($1 \leq T \leq 10$), the number of test cases. Each test case contains integer L_i which is the cost of land in million baht. There are less than 40 lands in each test case. The line contains '0' (zero) indicates the end of each test case.

Output

For each test case, print out the minimum price for purchasing all lands. If the total price exceeds the budget (5,000,000 millions baht), print out 'Too expensive'.

Sample Input

```
3
7
2
10
0
20
29
31
0
42
41
40
37
20
0
```

Sample Output

```
134
17744
Too expensive
```