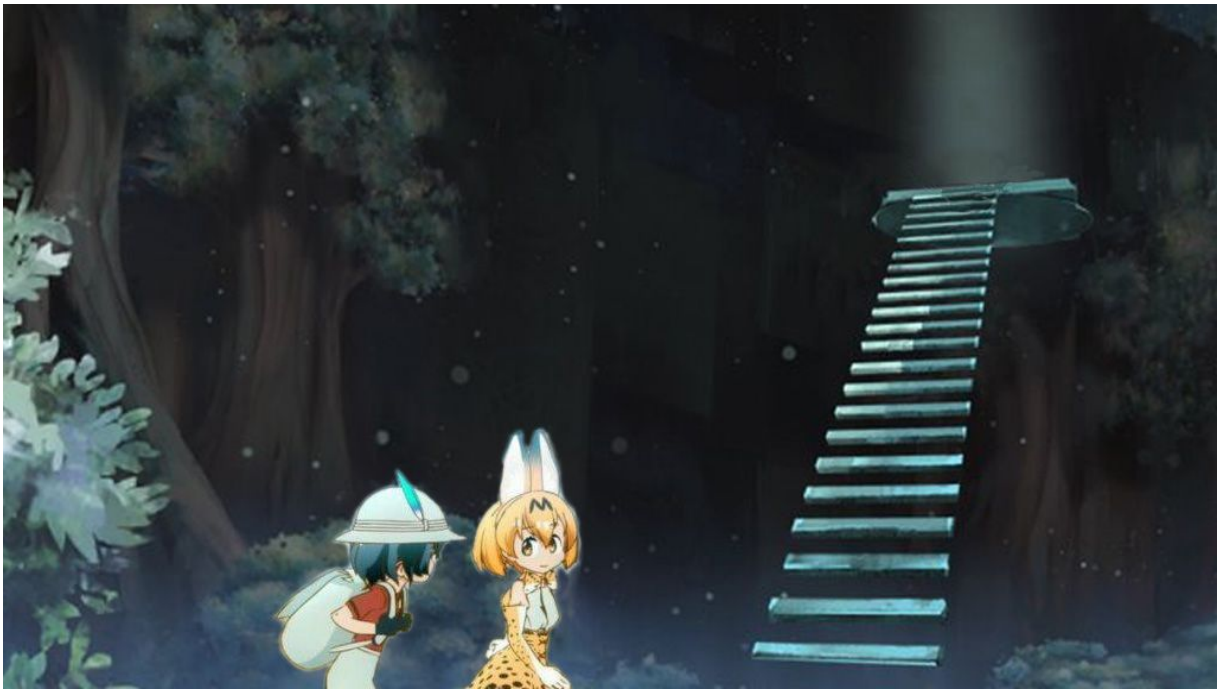
Ladder To Heaven
藪貓跳天梯

Team ID: 3
Team Member: B05901011 B05901061 B05901063



1.Topic: DP

2.Description

有一天藪貓與背包醬走到了一個天梯，為了帶著體力不好的背包醬一起爬上天梯，藪貓決定背著背包醬跳天梯。跳天梯時規定必須跳剛好n次，且跳天梯只能跳往上Ci或往下Ci個階梯且不能待在原地不動，但有m個特定的階梯(高度D_i，D_i>0)上覆蓋著一層薄冰，這m個階梯是不能跳上去的，太危險了。若原本應出現的階梯高度超過終點(max)或低於地面(0)的話，該階梯不會出現。請問在藪貓與背包醬跳完最後一步後，能夠達到最接近終點的階梯高度為何（可以為終點）？
(若中途沒有階梯可跳則輸出-1)

One day, Serval and Kaban found a ladder to heaven. To climb up the ladder with Kaban, who is relatively weak, Serval decided to jump on the ladder carrying Kaban on her back. There are several rules while jumping on the ladder. First, Serval has to jump exactly n times, and at each time she can only jump Ci or -Ci stairs . Besides, she cannot stay on the original stair. However, there are m specific stairs at given height D_i (D_i>0) covered with ice, making those stairs too dangerous to jump on. The stairs higher than the destination (max) or lower than the ground (0) will never exist.
Please calculate the highest stair that Serval and Kaban can arrive. If there is somehow no more stairs to jump on the ladder, just output -1.

3.Input and output format

第一行給t(測資總數)
之後重複t次以下內容：
第一行給n (規定要跳的次數), m (不會出現的階梯高度), max (終點，意即最高可達到的階梯高度)
第二行給C_1, C_2, ……C_n
第三行給D_1, D_2, ……D_m
The first line of the input contains three integers, n (the times to jump), m (the number of non-existing stairs), max (the highest available stair).
The second line contains n integers, C_1, C_2, ……C_n.
The third line contains m integers, D_1, D_2, ……D_m.
(0<=t<=100 0<=n<=100 0<=m<=2000 0<=max<=10000 1<=Ci<=100 0<=Di<=10000)

4.Sample input and output

範例輸入：

```
3
5 2 20
3 1 3 1 3
7 17
5 2 20
3 3 1 2 4
8 13
5 2 20
4 4 5 4 4
2 15
```

輸出：

```
9
11
13
```

5.Time and memory limit

Time Limit:1s
Memory Limit:256MB
Test case 1 (30%)
Test case 2 (30%)
Test case 3 (40%)