

Submission

ID	DATE	PROBLEM	STATUS	CPU	LANG
	TEST CASES				
8199531	04:01:46	Button Bashing	✔ Accepted	0.01 s	C++
	✔✔				

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FILENAME	FILESIZE	SHA-1 SUM	
buttonbashing.cpp	1266 bytes	5915acac1b0e1a06bc521f4e5a6b0f7ef19af186	download

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buttonbashing.cpp

```
1 //https://open.kattis.com/problems/buttonbashing
2 #include<bits/stdc++.h>
3 std::vector<int> adj_list;
4 std::vector<int> buttons;
5 class ButtonBash{
6 public:
7     void BFS()
8     {
9         std::queue<int> q;
10        q.push(0);
11        while (!q.empty())
12        {
13            int u = q.front();
14            q.pop();
15            for (auto &v : buttons)
16            {
17                int selected = u + v;
18                selected = fmin(3600, fmax(0, selected));
19                if (adj_list[selected] > adj_list[u] + 1)
20                {
21                    adj_list[selected] = adj_list[u] + 1;
22                    q.push(selected);
23                }
24            }
25        }
26    }
27 };
28
29 int main(){
30     std::ios_base::sync_with_stdio(false);
31     std::cin.tie(NULL);
32     ButtonBash b1=ButtonBash();
33     int cases;
34     std::cin >> cases;
35     for (int i = 0; i < cases; i++)
36     {
37         std::cin.clear();
38         adj_list.assign(3601, 1e9);
39         adj_list[0] = 0;
40         int number;
```

```
41     int duration;
42     std::cin >> number >> duration;
43     for (int j = 0; j < number; j++)
44     {
45         int input;
46         std::cin >> input;
47         buttons.push_back(input);
48     }
49     b1.BFS();
50     for (int j = duration; j < 3601; j++)
51     {
52         if (adj_list[j] != 1e9)
53         {
54             std::cout << adj_list[j] << " " << j - duration << "\n";
55             break;
56         }
57     }
58 }
59 }
```