```cpp
1    /// Another Solution(TIME-0.1S):
2
3    #include <bits/stdc++.h>
4    using namespace std;
5    map < int, map < int, map<int,int> > > dp;
6    map < int, map < int, map<int,int> > > vs;
7    //map < int, map < int, int > > dp[17];
8    //map < int, map < int, int > > vs[17];
9    int coin[17],bill[17], n, m;
10   int solve(int shop, int mask, int val){
11       if(shop==m){
12           int cnt=0;
13           for (int i=0; i<n; i++){
14               if ((mask & (1<<i))) cnt++;
15           }
16           return cnt;
17       }
18       if(mask == ((1<<n)-1)) return n+12;
19       if(vs[shop][mask][val] != 0) return dp[shop][mask][val];
20       vs[shop][mask][val] = 1;
21
22       int ret = n+12;
23       for(int i=0; i<n; i++){
24           if(((mask & (1<<i))==0) && (coin[i]<=val)){
25               int rem = val - coin[i];
26               if (rem==0) ret = min(ret, solve(shop+1, mask|(1<<i), bill[shop+1]));
27               else ret = min (ret, solve(shop, mask | (1<<i), rem));
28           }
29       }
30       return dp[shop][mask][val] = ret;
31   }
32   int main(){
33       int t; scanf("%d", &t);
34       for(int ks=1; ks<=t; ks++){
35           scanf("%d",&n);
36           for(int i=0; i<n; i++) scanf("%d",&coin[i]);
37           scanf("%d",&m);
38           for(int i=0; i<m; i++) scanf("%d",&bill[i]);
39
40           dp.clear(); vs.clear();
41   //
42   //        for(int i=0; i<17; i++){
43   //            dp[i].clear();
44   //            vs[i].clear();
45   //        }
46   //
47           int ans = solve(0, 0, bill[0]);
48           if(ans>n) ans = -1;
49           printf("Case %d: %d\n", ks, ans);
50       }
51
52       return 0;
53   }
```