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406410114   UVA11005 Cheapest Base
//question


//intput : test case number, 4line * 9 int , query number



#include <bits/stdc++.h>
using namespace std;

int main(){
        int i,j,k,test_number,query_number;
        long long int bit_cost[36],t,min_cost = 0;
        vector < long long int > cost;


        cin >> test_number;
        for ( i = 0 ; i <test_number;i++ ){

                for ( j = 0; j <36 ;j++ )
                        cin >> bit_cost[j];
                cin >> query_number;
                cout << "Case " << i+1 << ":\n";
                while ( query_number-- ){
                        //boot
                        min_cost = 12800;
                        cost.clear();
                        cin >>t;


                        cout << "Cheapest base(s) for number " << t << ":";
                        for ( j = 2; j <=36;j++ ){
                                long long temp = t,temp_cost = 0;
                                while ( temp != 0 ){
                                        temp_cost += bit_cost[temp % j] ;
                                        temp /=j;
                                }//while
                                cost.push_back( temp_cost );
                                min_cost = min( temp_cost,min_cost );
                        }//for

                        for ( j = 0; j <cost.size() ;j++  )
                                if ( cost[j] == min_cost )
                                        cout  << " "<< j+2;
                        cout << endl;
                }//while

                if ( i < test_number-1 )
                        cout << endl;
        }//for

        return 0;
}//main()
```