```
#include <bits/stdc++.h>
#define int long long int
#define inf 1e16
using namespace std;
vector<vector<pair<int, int> >> g;
int32_t main()
{
        int source, dest;
        cin >> source >> dest;
        int n, m;
        cin >> n >> m;
        vector<int> greenLight(n + 1);
        g = vector<vector<pair<int, int> >> (n + 1);
        for (int i = 1; i \le n; ++i)
                 cin >> greenLight[i];
        for (int i = 0; i < m; ++i) {
                 int u, v, w;
                 cin >> u >> v >> w;
                 g[u].push_back({ v, w });
                 g[v].push_back({ u, w });
        }
        priority_queue<pair<int, int>, vector< pair<int, int> >, greater<pair<int, int>>> q;
        q.push({ source, 0 });
        vector<int> dist(n + 1, inf);
        vector<int> vis(n + 1, 0);
        dist[source] = 0;
        while (!q.empty()) {
                 pair<int, int> p = q.top();
```

```
q.pop();
         int u = p.first;
        vis[u] = 1;
        for (auto p: g[u]) {
                 int v = p.first;
                 int w = p.second;
                 if (v == dest) {
                           int Dist = dist[u] + w;
                           if (dist[v] > Dist) {
                                    dist[v] = Dist;
                                    q.push({ v, dist[v] });
                           }
                 }
                  else {
                           int Dist = dist[u] + w;
                           int extra = (Dist % greenLight[v] == 0 ? 0 : greenLight[v] - (Dist % greenLight[v]));
                           if (dist[v] > Dist + extra) {
                                    dist[v] = Dist + extra;
                                    q.push({ v, dist[v] });
                           }
                  }
        }
}
cout << dist[dest] << '\n';</pre>
return 0;
```

}