Problem Link:

<https://codeforces.com/problemset/problem/580/C>

Solution:

* **#include** <bits/stdc++.h>
* **using** **namespace** std;
* **int** main() {
* **int** n, m;
* cin >> n >> m;
* **vector**<**vector<int>**> adj(n + 1);
* **vector<int>** cats(n + 1);
* **for**(**int** i = 1; i <= n; ++i)
* cin >> cats[i];
* **for**(**int** i = 0; i < n - 1; ++i)
* {
* **int** x, y;
* cin >> x >> y;
* adj[x].push\_back(y);
* adj[y].push\_back(x);
* }
* **int** s = 0;
* **stack**<tuple<**int**, **int**, **int**>> stk;
* stk.push({1, 0, 0});
* **while**(!stk.empty())
* {
* **auto** [u, p, c] = stk.top();
* stk.pop();
* **if**(cats[u])
* c++;
* **else**
* c = 0;
* **if**(c > m)
* **continue**;
* **bool** f = **true**;
* **for**(**int** v : adj[u])
* {
* **if**(v != p)
* {
* f = **false**;
* stk.push({v, u, c});
* }
* }
* **if**(f)
* s++;
* }
* cout << s << **"\n"**;
* **return** 0;
* }