Олимпиада «Ломоносов» по информатике
2024-2025 учебный год. Заключительный этап
Работа участника с id заявки 1439133, логином inf25f_124

Сводный итог по всем задачам в проверяющей системе

RunID Time Username Prob Lang Result Tests Score
167 2:57:29 inf25f_124 4 python3 Partial solution 0 0
134 2:27:21 inf25f_124 3 g++ Partial solution 19 80
72 1:21:25 inf25f_124 1 pypy3 OK 29 100
62 1:12:28 inf25f_124 2 pypy3 OK 28 100
N/A N/A inf25f_124 5 N/A N/A 0 0

280 технических баллов
80 итоговых баллов

Посылка по задаче 1

```
[1]
[2]
[3]  def kola(a):
[4]          mas = []
[5]          mas.append(a)
[6]          while a != 1:
[7]                  if a % 2:
[8]                          a = a * 3 + 1
[9]                  else:
[10]                         a = a / 2
[11]                 mas.append(a)
[12]         mas.append(4)
[13]         mas.append(2)
[14]         return mas
[15]
[16] a = int(input())
[17] b = int(input())
[18]
[19] mas_a = kola(a)
[20] mas_b = kola(b)
[21]
[22] flag = False
[23] for i in range(len(mas_a)):
[24]         for j in range(len(mas_b)):
[25]                 if mas_a[i] == mas_b[j]:
[26]                         print(i + j)
[27]                         flag = True
[28]                         break
[29]         if flag:
[30]                 break
[31]
[32]
```

Посылка по задаче 2

```
[1]
[2] def to(s):
[3]     x = 0
[4]     t = 1
[5]     i = len(s) -1
[6]     while i >= 0:
[7]         if s[i] == '_':
[8]             x += 26 * 3 * t
[9]             i -= 1
[10]            continue
[11]        if s[i] == '^':
[12]            x += 26 * t
[13]            i -= 1
[14]            continue
[15]        if s[i] == '~':
[16]            x += 26 * 2 * t
[17]            i -= 1
[18]            continue
[19]        x += (ord(s[i]) - ord('a')) * t
[20]        i -= 1
[21]        t *= 26
[22]    return x
[23]
[24]
[25]
[26] n = int(input())
[27] mas = []
[28] nums = []
[29] it = []
[30] for i in range(n):
[31]     x = input()
[32]     nums.append(to(x))
[33]     mas.append(to(x))
[34]
[35] nums = sorted(nums)
[36]
[37] for i in range(len(nums)):
[38]     if mas[i] != nums[i]:
[39]         it.append(i + 1)
[40]
[41] print(*it)
[42]
[43]
[44]
[45]
```

Посылка по задаче 3

```
[1] #include <bits/stdc++.h>
[2]
[3] using namespace std;
[4]
[5]
[6] int N, T, dist[10][10], maxval = 0;
[7] vector<int> v, maxmas;
[8]
[9]
[10]
[11] void path(vector<int> was = vector<int>(10), int value = 0, int time = 0, int from = 0)
[12] {
[13]     if (value > maxval){
[14]         maxval = value;
[15]         maxmas.clear();
[16]         for (int i = 0; i < N; ++i){
[17]             if (was[i])
[18]                 maxmas.push_back(i + 1);
[19]         }
[20]     }
[21]     for (int i = 0; i < N; ++i)
[22]     {
[23]         long long time2 = time +  dist[i][from];
[24]         if (was[i] == 0 and time2 <= T - dist[i][0])
[25]         {
[26]
[27]             was[i] = 1;
[28]            // cout << time2 + dist[i][0] << "!\n";
[29]             path(was, value + v[i], time2, i);
[30]             was[i] = 0;
[31]         }
[32]     }
[33] }
[34]
[35] int main()
[36] {
[37]     cin.tie(0)->sync_with_stdio(0);
[38]     int x;
[39]     cin >> N >> T;
[40]
[41]     for (int i = 0; i < N; ++i)
[42]     {
[43]         cin >> x;
[44]         v.push_back(x);
[45]     }
[46]     for (int i = 0; i < N; ++i) {
[47]         for (int j = 0; j < N; ++j) {
[48]             cin >> dist[i][j];
[49]         }
[50]     }
[51]
[52]     path();
[53]     cout << maxmas.size() << endl;
[54]     for (int x : maxmas){
[55]         cout << x << " ";
[56]     }
[57]
[58]     return 0;
[59] }
```

Посылка по задаче 4

```
[1] #include <bits/stdc++.h>
[2]
[3] using namespace std;
[4]
[5]
[6] int N, T, dist[10][10], maxval = 0;
[7] vector<int> v, maxmas;
[8]
[9]
[10]
[11] void path(vector<int> was = vector<int>(10), int value = 0, int time = 0, int from = 0)
[12] {
[13]     if (value > maxval){
[14]         maxval = value;
[15]         maxmas.clear();
[16]         for (int i = 0; i < N; ++i){
[17]             if (was[i])
[18]                 maxmas.push_back(i + 1);
[19]         }
[20]     }
[21]     for (int i = 0; i < N; ++i)
[22]     {
[23]         long long time2 = time +  dist[i][from];
[24]         if (was[i] == 0 and time2 <= T - dist[i][0])
[25]         {
[26]
[27]             was[i] = 1;
[28]            // cout << time2 + dist[i][0] << "!\n";
[29]             path(was, value + v[i], time2, i);
[30]             was[i] = 0;
[31]         }
[32]     }
[33] }
[34]
[35] int main()
[36] {
[37]     cin.tie(0)->sync_with_stdio(0);
[38]     int x;
[39]     cin >> N >> T;
[40]
[41]     for (int i = 0; i < N; ++i)
[42]     {
[43]         cin >> x;
[44]         v.push_back(x);
[45]     }
[46]     for (int i = 0; i < N; ++i) {
[47]         for (int j = 0; j < N; ++j) {
[48]             cin >> dist[i][j];
[49]         }
[50]     }
[51]
[52]     path();
[53]     cout << maxmas.size() << endl;
[54]     for (int x : maxmas){
[55]         cout << x << " ";
[56]     }
[57]
[58]     return 0;
[59] }
```

Посылка по задаче 5

Посылок по задаче 5 не было отправлено.