

The Magician and The Magic Colors

Problem	Submissions	Leaderboard	Discussions
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Submitted 40 minutes ago • Score: 20.00

Status: Accepted

✓	Test Case #0	✓	Test Case #1	✓	Test Case #2
✓	Test Case #3	✓	Test Case #4	✓	Test Case #5
✓	Test Case #6	✓	Test Case #7	✓	Test Case #8
✓	Test Case #9				

Submitted Code

Language: C++20

Open in editor

```
1 #include <bits/stdc++.h>
2 using namespace std;
3
4 /*
5 10
6 6
7 RGRRG
8 6
9 RGRGRG
10 4
11 RGGR
12 5
13 RGGR
14 4
15 RRGB
16 18
17 RBRBRBGRBRRGBGBGB
18 18
19 RBGRGBBRGBGRGRBGBR
20 6
21 RRBBGG
22 6
23 RGBBGR
24 3
25 BBB
26 */
27 int main()
28 {
29
```

```
30     int t;
31     cin >> t;
32     while (t--)
33     {
34
35         stack<char> st;
36         string s;
37
38         int n;
39         cin >> n;
40
41         for (int i = 0; i < n; i++)
42         {
43             char ch;
44             cin >> ch;
45
46             if (st.empty())
47             {
48                 st.push(ch);
49             }
50
51             else if (!st.empty())
52             {
53                 if (st.top() == ch)
54                 {
55                     st.pop();
56                 }
57
58                 else if (st.top() != ch)
59                 {
60                     if ((st.top() == 'R' and ch == 'B') or (st.top() == 'B' and ch == 'R'))
61                     {
62                         st.pop();
63                         st.push('P');
64                     }
65
66                     else if ((st.top() == 'R' and ch == 'G') or (st.top() == 'G' and ch == 'R'))
67                     {
68                         st.pop();
69                         st.push('Y');
70                     }
71
72                     else if ((st.top() == 'B' and ch == 'G') or (st.top() == 'G' and ch == 'B'))
73                     {
74                         st.pop();
75                         st.push('C');
76                     }
77
78                     else
79                     {
80                         st.push(ch);
81                     }
82                 }
83             }
84         }
85
86         string str2 = "";
87         stack<char> st2;
88
89         while (!st.empty())
90         {
91             st2.push(st.top());
92             st.pop();
93         }
94
95         while (!st2.empty())
```

```
96     {
97         str2 += st2.top();
98         st2.pop();
99     }
100
101     // cout<<str2<<endl;
102
103     stack<char> st3;
104     for (char ch3 : str2)
105     {
106         if (st3.empty())
107         {
108             st3.push(ch3);
109         }
110
111         else if (!st3.empty())
112         {
113             if (ch3 != st3.top())
114             {
115                 st3.push(ch3);
116             }
117
118             else
119             {
120                 st3.pop();
121             }
122         }
123     }
124
125     stack<char> st4;
126     while (!st3.empty())
127     {
128         // cout<<st3.top();
129         st4.push(st3.top());
130         st3.pop();
131     }
132
133     while (!st4.empty())
134     {
135         cout << st4.top();
136         st4.pop();
137     }
138
139     cout << endl;
140 }
141
142 return 0;
143 }
144
```