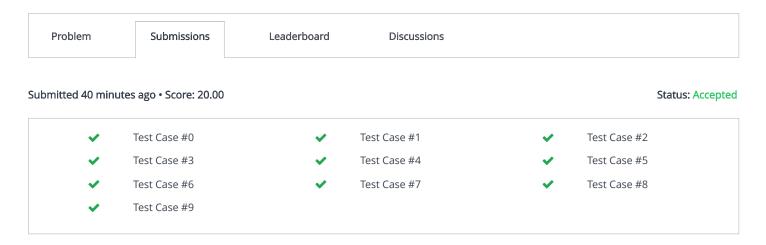
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The Magician and The Magic Colors



Submitted Code

```
Language: C++20
                                                                                                  P Open in editor
 1 #include <bits/stdc++.h>
 2 using namespace std;
 3
 4 /*
 5 10
 6 6
 7 RGGRRG
 8 6
 9 RGRGRG
10 4
11 RGGR
12 5
13 RGGGR
14 4
15 RGGB
16 18
17 RBRBRBGRBRRGBGGBGB
18 18
19 RBGRGBBRGBGRGRBGBR
20 6
21 RRBBGG
22 6
23 RBGBGR
24 3
25 BBB
26 */
27 int main()
28 {
29
```

7/7/23, 6:31 PM

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

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141 142

143 } 144 return 0;