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1 // [猜數字遊戲的提示/Master-Mind Hints](1/2)
2 #define IN "P05IN.txt"
3 #define OUT "P05OUT.txt"
4 //*****
5 #include <iostream>
6 #include <ctime>
7 using namespace std;
8 void redir(void);
9 //*****
10 /* Work Space*/
11
12 //*****
13 int main(void)
14 {
15     redir(); //redirection
16 //*****
17 /* Work Space*/
18     int n;
19     int kase = 0;
20     int i;
21     int a[1000], b[1000]; //陣列大小依題意
22     int A, B;
23     int d, c1, c2;
24
25     while(scanf("%d", &n) == 1 && n){
26         printf("Game %d\n", ++kase);
27         for(i=0; i<n; i++){
28             scanf("%d", &a[i]);
29         }
30
31         while(1){
32             A = B = 0;
33
34             for(i=0; i<n; i++){
35                 scanf("%d", &b[i]);
36                 if(a[i] == b[i]) A++; //直接統計可得A
37             }
38
39             if(b[0] == 0) break; //正常的猜測序列不會有0
40
41             for(d=1; d<=9; d++){ //只會出現數字1到9
42                 c1 = c2 = 0;
43                 for(i=0; i<n; i++){ //對每個數字d，統計在二者出現在a和b的次數：c1和c2
44                     if(a[i] == d) c1++;
45                     if(b[i] == d) c2++;
46                 }
47                 B += min(c1, c2); //min(c1, c2)就是該數字對B的貢獻
48             }
49
50             printf("    (%d,%d)\n", A, B-A); //最後要減去A的部分
51         }
52     }
53 //*****
54     freopen("CON", "r", stdin); //取消重新導向
55     freopen("CON", "w", stdout);
56
57     printf("Time used = %.2f\n", (double)clock()/CLK_TCK); //傳回程式目前為止執行的時間
58
59     system("pause");
60     return 0; //the end...
61 }
62
63

```

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64 //[猜數字遊戲的提示/Master-Mind Hints](2/2)
65 void redir(void)
66 {
67     freopen(IN, "r", stdin);
68     freopen(OUT, "w", stdout);
69 }
70 //*****
71 /* Work Space*/
72
73 //Input(IN) Sample
74 /*
75 4
76 1 3 5 5
77 1 1 2 3
78 4 3 3 5
79 6 5 5 1
80 6 1 3 5
81 1 3 5 5
82 0 0 0 0
83 10
84 1 2 2 2 4 5 6 6 6 9
85 1 2 3 4 5 6 7 8 9 1
86 1 1 2 2 3 3 4 4 5 5
87 1 2 1 3 1 5 1 6 1 9
88 1 2 2 5 5 5 6 6 6 7
89 0 0 0 0 0 0 0 0 0 0
90 0
91 */
92
93 //Output(OUT)
94 /*
95 Game 1
96     (1,1)
97     (2,0)
98     (1,2)
99     (1,2)
100    (4,0)
101 Game 2
102     (2,4)
103     (3,2)
104     (5,0)
105     (7,0)
106 */

```