

## Week-05-01-Practice session-Coding

Question 1

Correct

Marked out of  
3.00

Flag question

Write a program that prints a simple chessboard.

Input format:

The first line contains the number of inputs T.

The lines after that contain different values for size of the chessboard

Output format:

Print a chessboard of dimensions size \* size. Print a W for white spaces and B for black spaces.

Input:

2

3

5

Output:

WBW

BWB

WBW

WBWBW

BWBWB

WBWBW

BWBWB

WBWBW

# Source code

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     scanf("%d",&n);
5     for(int i=0;i<n;i++){
6         int a;
7         char c1='B',c2='W';
8         scanf("%d",&a);
9         for(int j=0;j<a;j++){
10            if(j%2!=0){
11                c1='W',c2='B';
12            }
13            else{
14                c1='B',c2='W';
15            }
16            for(int k=0;k<a;k++){
17                if(k%2!=0){
18                    printf("%c",c1);
19                }
20                else{
21                    printf("%c",c2);
22                }
23            }
24            printf("\n");
25        }
26    }
27    return 0;
28 }
```

# Result

	Input	Expected	Got	
✓	2	WBW	WBW	✓
	3	BWB	BWB	
	5	WBW	WBW	
		WBWBW	WBWBW	
		BWBWB	BWBWB	
		WBWBW	WBWBW	
		BWBWB	BWBWB	
		WBWBW	WBWBW	

Passed all tests! ✓

Question **2**

Correct

Marked out of  
5.00

 [Flag question](#)

Let's print a chessboard!

Write a program that takes input:

The first line contains T, the number of test cases

Each test case contains an integer N and also the starting character of the chessboard

Output Format

Print the chessboard as per the given examples

Sample Input / Output

Input:

2

2 W

3 B

Output:

WB

BW

BWB

WBW

BWB

# Source code

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     scanf("%d",&n);
5     for(int i=0;i<n;i++){
6         int a;
7         char b,c1='W',c2='B',temp;
8         scanf("%d %c",&a,&b);
9         for(int j=0;j<a;j++){
10            if (j%2==0){
11                if (b!=c1){
12                    c2=c1;
13                    c1=b;
14                }
15            } else{
16                temp=c1;
17                c1=c2;
18                c2=temp;
19            }
20            for(int k=0;k<a;k++){
21                if (k%2==0){
22                    printf("%c",c1);
23                } else{
24                    printf("%c",c2);
25                }
26            }
27            printf("\n");
28        }
29    }
30 }
31 }
32 }
```

# Result

	Input	Expected	Got	
✓	2	WB	WB	✓
	2 W	BW	BW	
	3 B	BWB	BWB	
		WBW	WBW	
		BWB	BWB	

Passed all tests! ✓

**Question 3**

Correct

Marked out of  
7.00

[Flag question](#)

Decode the logic and print the Pattern that corresponds to given input.

If N= 3

then pattern will be :

10203010011012

\*\*4050809

\*\*\*\*607

If N= 4, then pattern will be:

1020304017018019020

\*\*50607014015016

\*\*\*\*809012013

\*\*\*\*\*10011

**Constraints**

$2 \leq N \leq 100$

**Input Format**

First line contains T, the number of test cases

Each test case contains a single integer N

**Output**

First line print Case #i where i is the test case number

In the subsequent line, print the pattern

**Test Case 1**

3

3

4

5

## Output

Case #1

10203010011012

\*\*4050809

\*\*\*\*607

Case #2

1020304017018019020

\*\*50607014015016

\*\*\*\*809012013

\*\*\*\*\*10011

Case #3

102030405026027028029030

\*\*6070809022023024025

\*\*\*\*10011012019020021

\*\*\*\*\*13014017018

\*\*\*\*\*15016

## Source code

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     scanf("%d",&n);
5     for (int i=1;i<=n;i++){
6         int a;
7         scanf("%d",&a);
8         int l=1,s=a,t=(a*(a+1))-a+1;
9         printf("Case #%d\n",i);
10        for (int j=0;j<a;j++){
11            int k=2*j,t1=t;
12            while(k>0){
13                printf("%c",'*');
14                k-=1;
15            }
16            for (int p=0;p<s;p++){
17                printf("%d",l);
18                l+=1;
19                printf("%d",0);
20            }
21            for(int q=0;q<s;q++){
22                printf("%d",t1);
23                t1+=1;
24                if (q==(s-1)){
25                    break;
26                }
27                printf("%d",0);
28            }
29            s-=1;
30            t-=s;
31            printf("\n");
32        }
33    }
34 }
```

# Result

	Input	Expected	Got	
✓	3	Case #1 10203010011012	Case #1 10203010011012	✓
	4	**4050809	**4050809	
	5	****607 Case #2 1020304017018019020 **50607014015016 ****809012013 *****10011 Case #3 102030405026027028029030 **6070809022023024025 ****10011012019020021 *****13014017018 *****15016	****607 Case #2 1020304017018019020 **50607014015016 ****809012013 *****10011 Case #3 102030405026027028029030 **6070809022023024025 ****10011012019020021 *****13014017018 *****15016	

Passed all tests! ✓