Name: Kirithick Raja

Roll no.: 240701627

Week-05-S01

Question 1:

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 a different values for size of the chessboard

Output format:

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

Input:

2
3
5

Output:

WBW
BWB

Source code:

```c
#include<stdio.h>
int main()
{
    int n,t;
    scanf("%d",&t);
    for(int i=0;i<t;i++)
    {
        scanf("%d",&n);
        for(int j=0;j<n;j++)
        {
            for(int m=0;m<n;m++)
            {
                if((m+j)%2==0)
                {
                    printf("W");
                }
                else
                {
                    printf("B");
                }
            }
            printf("\n");
        }
    }
    return 0;
}
```

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

Question 2:

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

Source code:

```c
#include<stdio.h>
int main()
{
    int n,t;
    char c,s;
    scanf("%d",&t);
    for(int i=0;i<t;i++)
    {
        scanf("%d %c",&n,&c);
        if(c=='W')
        {
            s='B';
        }
        else
        {
            s='W';
        }
        for(int j=0;j<n;j++)
        {
            for(int m=0;m<n;m++)
            {
                if((m+j)%2==0)
                {
                    printf("%c",c);
                }
                else
                {
                    printf("%c",s);
                }
            }
            printf("\n");
        }
    }
    return 0;
}
```

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

Passed all tests! ✓

Question 3:

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 <= N <= 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

Source code:

```c
#include<stdio.h>
int main()
{
    int n,v,p3,c,in,i,i1,i2,t,ti;
    scanf("%d",&t);
    for(ti=0;ti<t;ti++)
    {
        v=0;
        scanf("%d",&n);
        printf("Case #%d\n",ti+1);
        for(i=0;i<n;i++)
        {
            c=0;
            if(i>0)
            {
                for(i1=0;i1<i;i1++) printf("**");
                }
                for(i1=i;i1<n;i1++)
                {
                    if(i>0) c++;
                    printf("%d0",++v);
                }
                if(i==0)
                {
                    p3=v+(v*(v-1))+1;
                    in=p3;
                }
                in=in-c;
                p3=in;
                for(i2=i;i2<n;i2++)
                {
                    printf("%d",p3++);
                    if(i2!=n-1)
                    printf("0");
                }
           printf("\n");
        }
    }
    return 0;
}
```

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

Passed all tests! ✓