ROLL NO.:240801133 Name: Jeevana S M Q1) 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 value for size of the chessboard Output format: Print a chessboard of dimensions size * size. Print W for white spaces and B for black spaces. Sample Input: 2 3 5 Sample Output: **WBW** BWB **WBW WBWBW BWBWB WBWBW BWBWB WBWBW** CODE: Status Finished Started Sunday, 12 January 2025, 9:17 PM Completed Sunday, 12 January 2025, 10:27 PM

Duration 1 hour 10 mins

Week 5 - 01:

```
#include <stdio.h>
 1
 2 ,
   int main(){
         int t,size;
 3
         scanf("%d",&t);
 4
         while(t--)
 5
 6 •
             scanf("%d",&size);
 7
             for(int i=0;i<size;i++)</pre>
 8
 9 🔻
                  for(int j=0;j<size;j++)</pre>
10
11 ▼
                      if((i+j)\%2==0)
12
13
                      printf("W");
14
                      else
                      printf("B");
15
16
                  printf("\n");
17
18
19
         return 0;
20
21
```

OUTPUT:

	Input	Expected	Got	
~	2	WBW	WBW	~
	3	BWB	BWB	
	5	WBW	WBW	
		WBWBW	WBWBW	
		BWBWB	BWBWB	
		WBWBW	WBWBW	
		BWBWB	BWBWB	
		WBWBW	WBWBW	
Passed	d all test	rs! 🗸		

Q2) 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:

2

2 W

3 B

Sample Output:

WB

BW

BWB

WBW

BWB

CODE:

```
#include<stdio.h>
 1
 2 v int main(){
 3
         int t,size;
 4
         char ch;
         scanf("%d",&t);
 5
         while(t--)
 6
 7 •
             scanf("%d %c",&size,&ch);
 8
             for(int i=0;i<size;i++)</pre>
 9
10 •
                 for(int j=0;j<size;j++)</pre>
11
12 🔻
                      if((i+j)\%2==0)
13
                      printf("%c",ch);
14
15
                      printf("%c",(ch=='W')?'B':'W');
16
17
                 printf("\n");
18
19
20
21
         return 0;
22
```

OUTPUT:

	In	put	Expected	Got	
~	2		WB	WB	~
	2	W	BW	BW	
	3	В	BWB	BWB	
			WBW	WBW	
			BWB	BWB	

Passed all tests! 🗸

Q3) 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 Format
First line print Case #i where i is the test case number, In the subsequent line, print the
pattern
pattern Sample Input
Sample Input
Sample Input 3
Sample Input 3 3
Sample Input 3 4
Sample Input 3 4 5
Sample Input 3 4 5 Sample Output
Sample Input 3 4 5 Sample Output Case #1
Sample Input 3 4 5 Sample Output Case #1 10203010011012
Sample Input 3 3 4 5 Sample Output Case #1 10203010011012 **4050809
Sample Input 3 3 4 5 Sample Output Case #1 10203010011012 **4050809 ****607
Sample Input 3 3 4 5 Sample Output Case #1 10203010011012 **4050809 ****607 Case #2

```
******10011

Case #3

102030405026027028029030

**6070809022023024025

****10011012019020021

*****13014017018

*******15016
```

CODE:

```
|#include<stdio.h>
 2 v int main(){
 3
   |int num,t;
   scanf("%d",&t);
   int st1=1;
 5
 6
    int st2;
 7 | for(int k=1;k<=t;k++){</pre>
   printf("Case #%d\n",k);
 8
   scanf("%d",&num);
 9
10
   st1=1;
11
    st2=num*(num+1);
12
    for(int i=0;i<num;i++)</pre>
13 ▼ | {
14 v for(int j=0;j<i;j++){
15
    printf("**");
16
17 v for(int j=0;j<num-i;j++){
    printf("%d",(st1++)*10);
18
19
20
    st2=st2-(num-i-1);
21 | for(int j=0;j<(num-i-1);j++){
    printf("%d",(st2++)*10);
22
23
    printf("%d",st2);
24
    st2=st2-(num-i);
25
    printf("\n");
26
27
28
29
    return 0;
30
```

OUTPUT:

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