

## **Simple Chessboard**

**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

## Program:

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    int T, size;
```

```
    scanf("%d", &T); // number of test cases
```

```
    while (T--)
```

```
    {
```

```
        scanf("%d", &size); // size of the chessboard
```

```
        for (int i = 0; i < size; i++) // loop for rows
```

```
        {
```

```
            for (int j = 0; j < size; j++) // loop for columns
```

```
            {
```

```
                // If sum of row and column index is even → W, else → B
```

```
                if ((i + j) % 2 == 0)
```

```
                    printf("W");
```

```
                else
```

```
                    printf("B");
```

```
            }
```

```
            printf("\n"); // move to next line after each row
```

```
        }
```

```
    }
```

```
    return 0;
```

```
}
```

## Print Our Own Chessboard

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

**Program:**

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    int T, N;
```

```
    char start;
```

```
    scanf("%d", &T);
```

```
while (T--)  
{  
    scanf("%d %c", &N, &start);  
    char first = start;  
    char second = (start == 'W') ? 'B' : 'W';  
  
    for (int i = 0; i < N; i++)  
    {  
        for (int j = 0; j < N; j++)  
        {  
            if ((i + j) % 2 == 0)  
                printf("%c", first);  
            else  
                printf("%c", second);  
        }  
        printf("\n");  
    }  
    return 0;  
}
```

<b>(i,j)</b>	<b>i+j</b>	<b>(i+j)%2</b>	<b>Printed</b>
<b>0,0</b>	<b>0</b>	<b>0</b>	<b>W</b>
<b>0,1</b>	<b>1</b>	<b>1</b>	<b>B</b>
<b>0,2</b>	<b>2</b>	<b>0</b>	<b>W</b>
<b>1,0</b>	<b>1</b>	<b>1</b>	<b>B</b>
<b>1,1</b>	<b>2</b>	<b>0</b>	<b>W</b>
<b>1,2</b>	<b>3</b>	<b>1</b>	<b>B</b>
<b>2,0</b>	<b>2</b>	<b>0</b>	<b>W</b>
<b>2,1</b>	<b>3</b>	<b>1</b>	<b>B</b>
<b>2,2</b>	<b>4</b>	<b>0</b>	<b>W</b>