

WEEK - 5

- > Week-06-One-Dimensional Arrays
- > Week-06-01-One-Dimensional Arrays
- > Week-07-Searching Algorithms-Linear and Binary
- > Assessment-07-Searching Algorithms-Linear and Binary
- > Week-08-Sorting Algorithms-Bubble and Selection
- > Assessment-08-Sorting Algorithms-Bubble and Selection
- > Week-09-Two-Dimensional and Multi-dimensional Arrays
- > Assessment-09-Two-

Week-05-Nested Loops - while and for, Jumps in Loops

Week-05-01-Practice Session-Coding

Done

Week-05-02-Practice Session-Coding

Done

Assessment-05-Decision Making and Looping - while and do...while

Coding

Done

Practice Session 1

```

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

```

	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! ✓

```

1  #include<stdio.h>
2  int main(){
3      int t;
4      scanf("%d", &t);
5      for(int n = 1; n <=t; n++){
6          int sn;
7          char a;
8          scanf("%d %c", &sn, &a);
9          for(int i = 1; i <= sn; i++){
10             for(int j = 1; j <= sn; j++){
11                 if((i + j) % 2 == 0){
12                     printf("%c", a);
13                 }
14                 else{
15                     if(a == 'W'){
16                         printf("B");
17                     }
18                     else{
19                         printf("W");
20                     }
21                 }
22             }
23             printf("\n");
24         }
25     }
26     return 0;
27 }

```

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

Passed all tests! ✓

```

1  #include<stdio.h>
2  int main(){
3      int n, v, p3, c, in, i, i1, i2, t, ti;
4      scanf("%d", &t);
5      for(ti = 0; ti < t; ti++){
6          v = 0;
7          scanf("%d", &n);
8          printf("Case #%d\n", ti + 1);
9          for(i = 0; i < n; i++){
10             c = 0;
11             if(i > 0){
12                 for(i1 = 0; i1 < i; i1++){
13                     printf("***");
14                 }
15             }
16             for(i1 = i; i1 < n; i1++){
17                 if(i > 0){
18                     c++;
19                 }
20                 printf("%d0", ++v);
21             }
22             if(i == 0){
23                 p3 = v + (v * (v - 1)) + 1;
24                 in = p3;
25             }
26             in = in - c;
27             p3 = in;
28             for(i2 = i; i2 < n; i2++){
29                 printf("%d", p3++);
30                 if(i2 != n - 1){
31                     printf("0");
32                 }
33             }
34             printf("\n");
35         }
36     }
37     return 0;
38 }

```

	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	

Passed all tests! ✓

Practice Session 2

```

1  #include<stdio.h>
2  #include<math.h>
3  int main(){
4      int n;
5      scanf("%d", &n);
6      int x = 0, n2 = n;
7      while(n2 != 0){
8          x ++;
9          n2 = n2 / 10;
10     }
11     int sum = 0;
12     int n3 = n, n4;
13     while(n3 != 0){
14         n4 = n3 % 10;
15         sum = sum + pow(n4, x);
16         n3 = n3 / 10;
17     }
18     if(n == sum){
19         printf("true");
20     }
21     else{
22         printf("false");
23     }
24     return 0;
25 }

```

	Input	Expected	Got	
✓	153	true	true	✓
✓	123	false	false	✓

Passed all tests! ✓

```

1  #include<stdio.h>
2  int main(){
3      int rn, n, nt = 0, i = 0;
4      scanf("%d", &n);
5      do{
6          nt = n; rn = 0;
7          while(n != 0){
8              rn = rn * 10 + n % 10;
9              n = n / 10;
10         }
11         n = nt + rn;
12         i ++;
13     }
14     while(rn != nt || i == 1);
15     printf("%d", rn);
16     return 0;
17 }

```

	Input	Expected	Got	
✓	32	55	55	✓
✓	789	66066	66066	✓

Passed all tests! ✓

```

1  #include<stdio.h>
2  int main(){
3      int n = 1, i = 0, nt, co = 0, e;
4      scanf("%d", &e);
5      while(i < e){
6          nt = n;
7          while(nt != 0){
8              co = 0;
9              if(nt % 10 != 3 && nt % 10 != 4){
10                 co = 1;
11                 break;
12             }
13             nt = nt / 10;
14         }
15         if(co == 0){
16             i++;
17         }
18         n++;
19     }
20     printf("%d", --n);
21     return 0;
22 }

```

	Input	Expected	Got	
✓	34	33344	33344	✓

Passed all tests! ✓