Sameer Sir Classes, Jabalpur
Auth Exam Center Oracle, Microsoft
9407077858

NESTED FOR

2 --> 3

```
for( i = 1 ; i <= 2 ; i++)
{
        for( j = 1 ; j <= 3 ; j++)
        {       ----------
                ----------
        } // j
} // i
```

trace :-

i = 1 j = 1 to 3

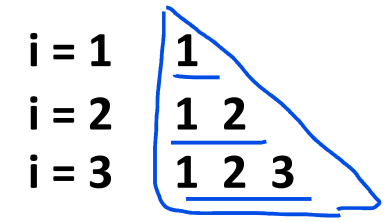
j = 1 ---> 1 1
j = 2 ---> 1 2
j = 3 ---> 1 3

---

i = 2 j = 1 to 3
j = 1 ---> 2 1
j = 2 ---> 2 2
j = 3 ---> 2 3

---

n = 3




```
for( i = 1 ; i < = n ; i++)
{
    for ( j = 1 ; j <= i ; j++ )
    {     -------
          -------
    }
}
```

WAP TO PRINT TRIAGLE n = 3

```
1
1 2
1 2 3
```

```
#include<stdio.h>
 int   main()
 {
       int  n , i , j ;
```

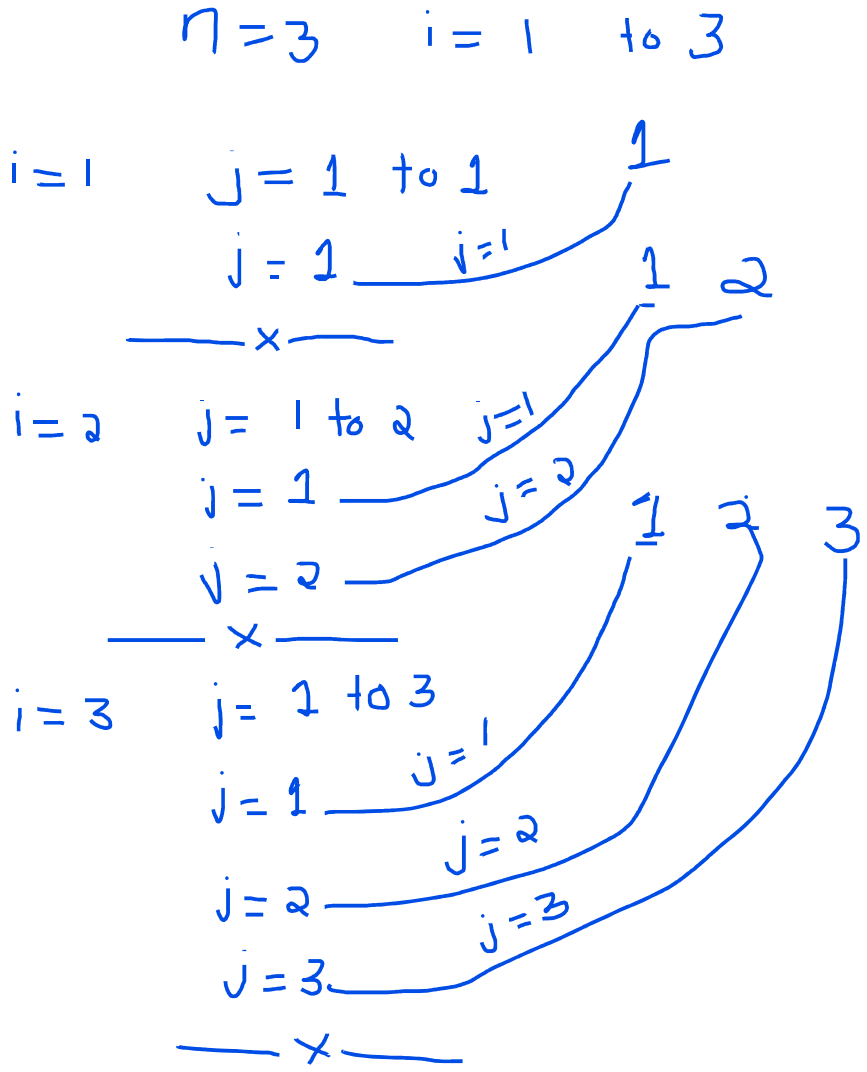
```
        printf(" ENTER NO OF ROWS \n ");

        scanf("%d" , &n);

        for( i  = 1 ; i <= n ; i++ )    // NO. OF ROWS
        {
                for( j = 1 ; j <= i ; j++)
                {
                        printf("%4d",j);
                } // j

                printf("\n");

        } // i
}
```


n = 3 i = 1 to 3
i = 1
j = 1 to 1
j = 1
j=1
1
x
i = 2
j = 1 to 2
j=1
j = 1
j=2
1 2
j = 2
x
i = 3
j = 1 to 3
j=1
j = 1
j=2
j = 2
j=3
j = 3
1 2 3
x

1. **n = 3**

i = 1 1
i = 2 1 2
i = 3 1 2 3

printf("%4d " , j);

---

2. **N = 3**

1
2 2
3 3 3

printf("%4d" , i);

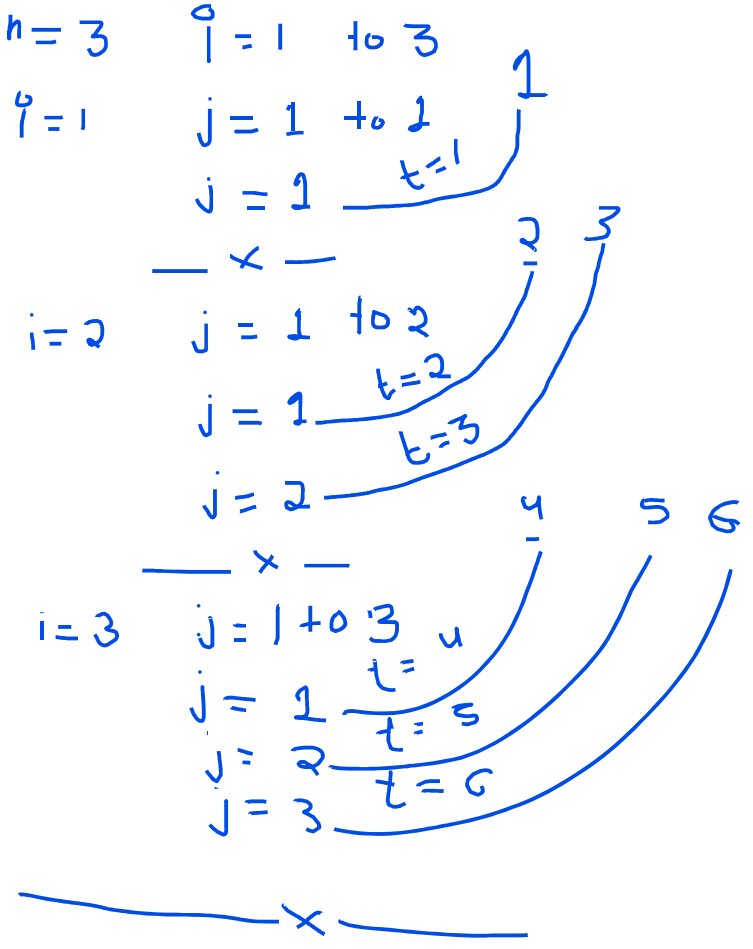
3.
3
3 3
3 3 3

printf("%4d" , n);

4.

1
2 3
4 5 6

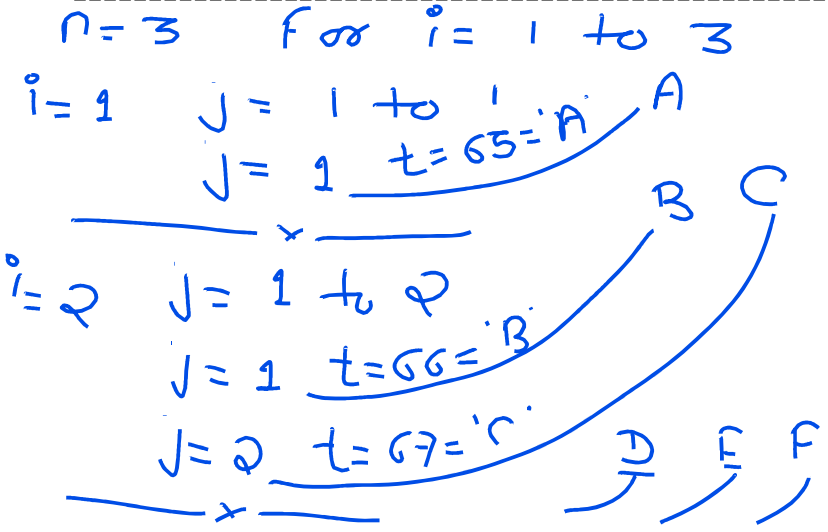
```
int t = 1 ;
printf("%4d" , t);
t++;
```



5.

A
B C %4c
D E F
or
65
66 67 %4d
68 69 70

```
int t = 65 ; // char t = 'A' ;
printf("%4c" , t);
t++;
```



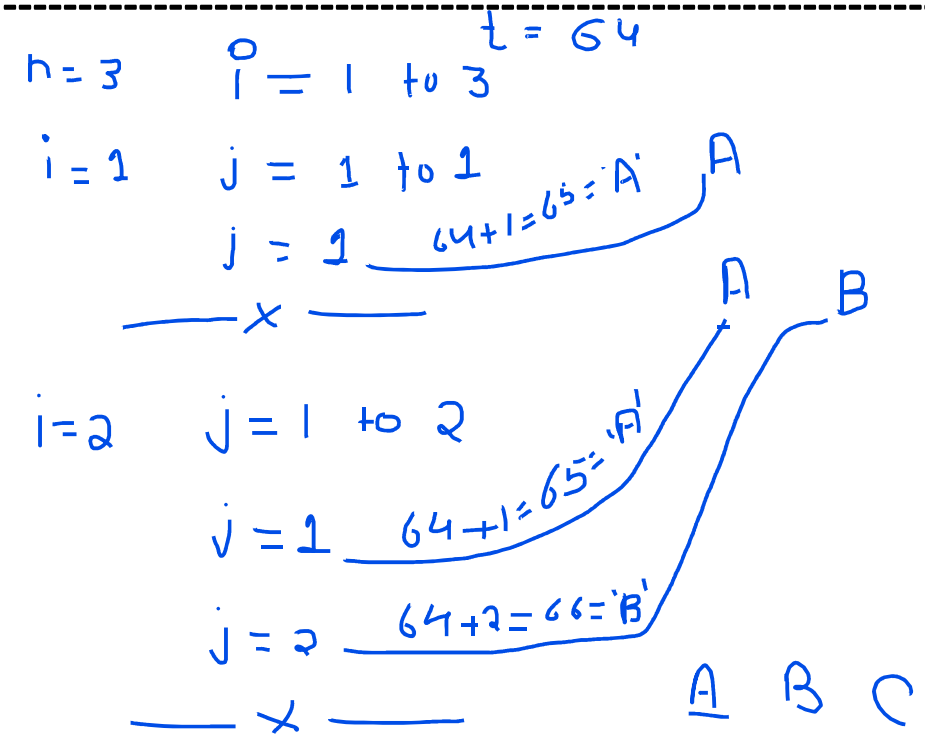
6.

A
A B %4c
A B C

or

65
65 66 %4d
65 66 67

```
int t = 64 ;
printf("%4d" , t + j ) ;
```

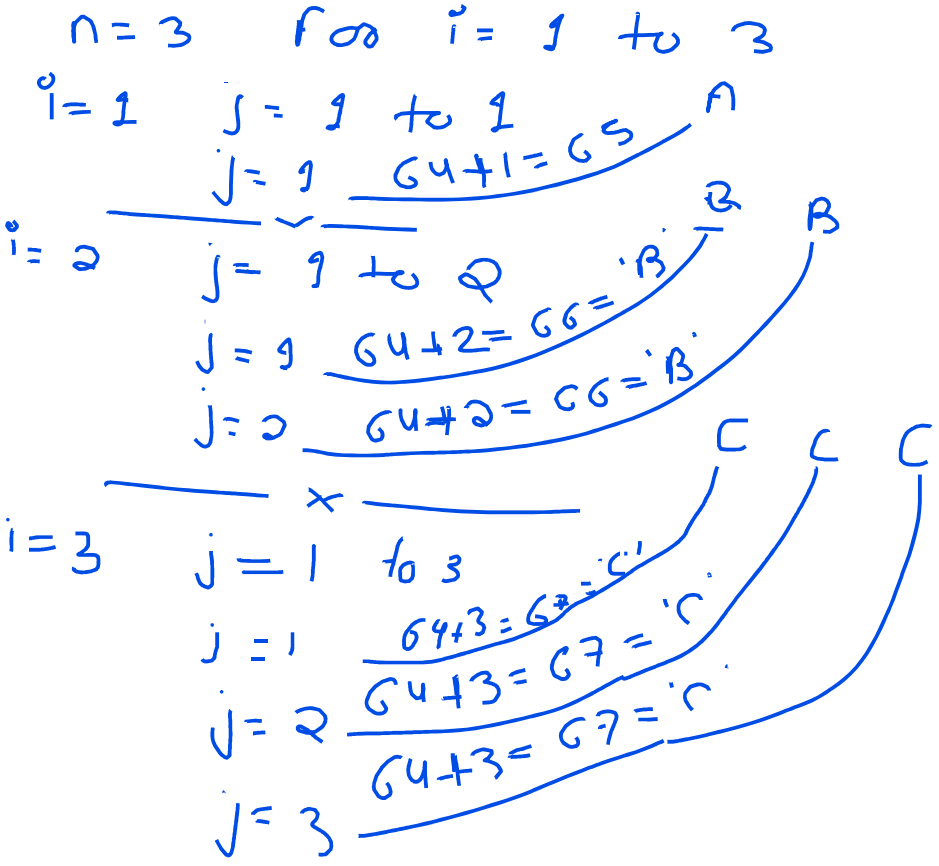


7.

```
A
B B
C C C
```

```
1 2 3
1 2
1
```

```
int t = 64 ;
printf("%4c",t+i);
```



8. n = 4

```
1
0 1
1 0 1
0 1 0 1
```

```
/*
-----------------------------------------------------------------
WAP TO  PRINT TRIAGLE  n = 3
  1
  2  2
  3  3  3
-----------------------------------------------------------------
 */
```

```
#include<stdio.h>
  int    main()
  {
            int  n , i , j ;
            printf(" ENTER NO OF ROWS \n ");
            scanf("%d" , &n);
            for( i  = 1 ; i <= n ; i++ )    // NO. OF ROWS
            {
                  for( j = 1 ; j <= i ; j++)
                  {
                        printf("%4d",i);
                  }  // j
                  printf("\n");

            } // i
  }
```

WAP TO PRINT TRIAGLE n = 3

```
   1
   2 3
   4 5  6
```

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

```
int    main()
{
        int  n , i , j ,t = 1 ;
        printf(" ENTER NO OF ROWS \n ");
        scanf("%d" , &n);

        for( i  = 1 ; i <= n ; i++ )    // NO. OF ROWS
        {
            for( j = 1 ; j <= i ; j++)
            {
                printf("%4d",t);
                t++;
            }  // j

            printf("\n");

        } // i
}
```

WAP TO PRINT TRIAGLE n = 3

```
 A
 B  C
 D  E  F
```

```
#include<stdio.h>
  int    main()
```

```
{
        int  n , i , j ,t = 65 ;
        printf(" ENTER NO OF ROWS \n ");
        scanf("%d" , &n);

        for( i  = 1 ; i <= n ; i++ )    // NO. OF ROWS
        {
            for( j = 1 ; j <= i ; j++)
            {
                printf("%4C",t);
                t++;
            }  // j


            printf("\n");

        } // i
}
```

WAP TO PRINT TRIAGLE n = 3

```
A
A  B
A  B  C
```

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

```
int    main()
{
        int  n , i , j ,t ;
        printf(" ENTER NO OF ROWS \n ");
        scanf("%d" , &n);

        for( i  = 1 ; i <= n ; i++ )    // NO. OF ROWS
        {
              t = 64 ;
          for( j = 1 ; j <= i ; j++)
          {
                  printf("%4C",(t+j));
          } // j
          printf("\n");
        } // i
}
```

WAP TO PRINT TRIAGLE n = 3

```
  A
  B  B
  C   C  C
```

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

```
int    main()
{
          int  n , i , j ,t ;
          \printf(" ENTER NO OF ROWS \n ");
          scanf("%d" , &n);

          for( i  = 1 ; i <= n ; i++ )    // NO. OF ROWS
          {
                  t = 64 ;
              for( j = 1 ; j <= i ; j++)
              {
                        printf("%4C",(t+i));
              }  // j
              printf("\n");
          } // i
}
```

WAP TO PRINT TRIAGLE n = 3

```
 1
 0  1
 1  0  1
```

```
#include<stdio.h>
 int   main()
 {
          int  i , j , n ;
          printf(" ENTER NO. OF ROWS \n ");
          scanf("%d", &n);

          for(  i = 1 ; i <= n ; i++ )
          {
                   for( j = 1 ; j <= i ; j++)
                   {
                       printf("%4d",  (i+j+1) % 2);
                    }
                   printf("\n");
          }
 }
```

i = 3 j = 1 to 3

(i + j + 1) % 2

j = 1 (3 + 1 + 1) % 2 = 1

j = 2 (3 + 2 + 1) % 2 = 0

j = 3 (3 + 3 + 1) % 2 = 1

9. N = 3

1 2 3

1 2

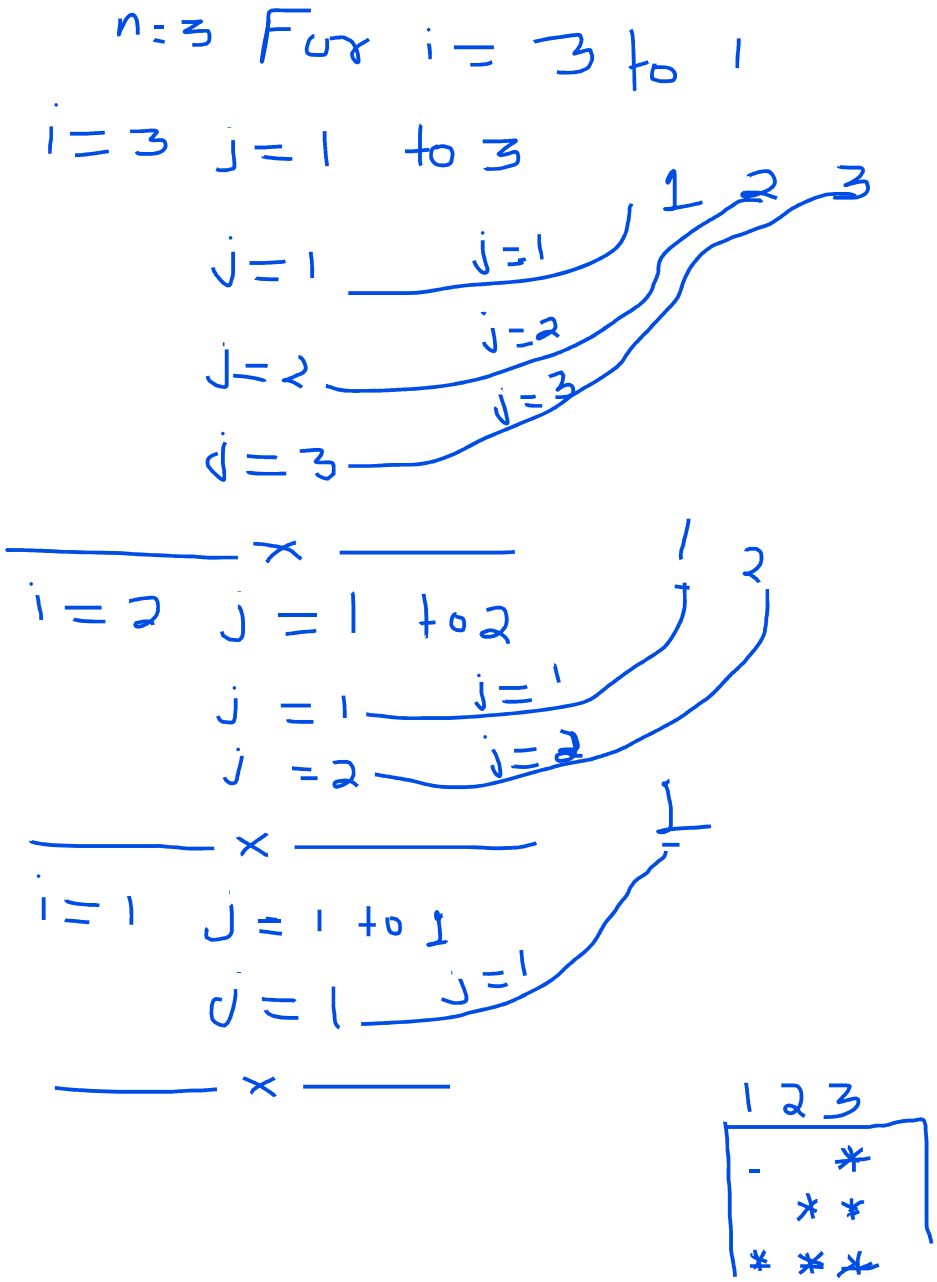
1

for (i = n ; i >=1 ; i--)

```
#include<stdio.h>
  int   main()
  {
        int  n , i , j ;

        printf(" ENTER NO OF ROWS \n ");
        scanf("%d" , &n);

       for( i  = n  ; i >= 1 ; i-- )
       {
            for( j = 1 ; j <= i ; j++)
            {
                 printf("%4d",j);
            } // j
            printf("\n");
      } // i
  }
```


n=3 For i = 3 to 1
i=3 j=1 to 3
j=1
j=2
j=3
1 2 3
j=1
j=2
j=3
x
i=2 j=1 to 2
j=1
j=2
1 2
j=1
j=2
x
i=1 j=1 to 1
j=1
1
j=1
x

1 2 3
-
*
* *
* * *