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PATTERN

CYBER TRON

C-PROGRAMMING

(PATTERN)

T.I.M. HAMIM

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1. pattern

Art something is called pattern in programming.

- **Make a program that will show given bellow:**

```
#include<stdio.h>
void main()
{
    int i,j;
    for(i=0;i<5;i++) /* outer loop */
    {
        for(j=0;j<5;j++) /* inner loop*/
        {
            printf("*");
        }
        printf("\n");
    }
}
```

- **Make a program that will print given bellow:
Enter last finishing number : 5**

*** * * * ***

*** * * ***

*** * ***

*** ***

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

```
int main()
```

```
{
```

```
    int i,j,sum=0,n;
```

```
    printf("Enter last finishing number : ");
```

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

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

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

```
            printf("* ");
```

```
        }
```

```
        printf("\n");
```

```
    }
```

```
    return 0;
```

```
}
```

- **Make a program that will print given bellow:**
Enter total line : 5

* * * * *

 * * * *

 * * *

 * *

 *

```
#include<stdio.h>
int main()
{
    int i,j,n;
    printf("Enter total line : ");
    scanf("%d",&n);
    for(i=1;i<=n;i++){
        for(j=1;j<=i;j++){
            printf(" ");
        }
        for(j=1;j<=n;j++){
            printf("* ");
        }
        printf("\n");
    }
    return 0;
}
```

```
or,  
#include<stdio.h>  
int main()  
{  
    int i,j,sum=0,n,k;  
    printf("Enter total line : ");  
    scanf("%d",&n);  
    for(i=n,k=0;i>=1;i--,k=k+2){  
        for(j=1;j<=k;j++){  
            printf(" ");  
        }  
        for(j=i;j>=1;j--){  
            printf("* ");  
        }  
        printf("\n");  
    }  
    return 0;  
}
```

- **Make a program that will print given bellow:**

Enter total line : 5

*** * * * ***

*** * * ***

*** * ***

*** ***

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

```
int main()
```

```
{
```

```
int i,j,sum=0,n,k;
```

```
printf("Enter total line : ");
```

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

```
for(i=n,k=1;i>=1;i--,k++){
```

```
for(j=1;j<=(i-1)*2;j++){
```

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

```
}
```

```
for(j=i;j>=1;j--){
```

```
printf("* ");
```

```
}
```

```
printf("\n");
```

```
}
```

```
return 0;
```

```
}
```

- **Make a program that will print given bellow:
Enter last finishing number : 5**

*
* *
* * *
* * * *
* * * * *

```
#include<stdio.h>
int main()
{
    int i,j,sum=0,n;
    printf("Enter last finishing number : ");
    scanf("%d",&n);
    for(i=1;i<=n;i++){
        for(j=1;j<=i;j++){
            printf("* ");
        }
        printf("\n");
    }
    return 0;
}
```


- **Make a program that will print given bellow:
Enter last finishing number : 5**

```
      *
    * *
  * * *
* * * *
* * * * *
```

```
#include<stdio.h>
int main()
{
    int i,j,n;
    printf("Enter total line : ");
    scanf("%d",&n);
    for(i=n;i>=1;i--){
        for(j=1;j<=(i-1)*2;j++){

            printf(" ");
        }
        for(j=n;j>=i;j--){
            printf("* ");
        }
        printf("\n");
    }
    return 0;
}
```

```
or,  
#include<stdio.h>  
int main()  
{  
    int i,j,sum=0,n,k;  
    printf("Enter total line : ");  
    scanf("%d",&n);  
    for(i=n,k=1;i>=1;i--,k++){  
        for(j=1;j<=(i-1)*2;j++){  
  
            printf(" ");  
        }  
        for(j=1;j<=k;j++){  
            printf("* ");  
        }  
        printf("\n");  
    }  
    return 0;  
}
```

- Make a program that will print given bellow:

Enter total line : 7

```
*
***
*****
*****
*****
*****
*****
```

```
#include<stdio.h>
int main()
{
    int i,j,sum=0,n,k,p;
    printf("Enter total line : ");
    scanf("%d",&n);
    for(i=1;i<=n;i++){
        for(j=i;j<=n;j++){

            printf(" ");
        }
        for(j=1;j<=i+(i-1);j++){
            printf("*");
        }
        printf("\n");
        p=k;
    }
    return 0;
}
```

```
or,  
#include<stdio.h>  
int main()  
{  
    int i,j,sum=0,n,k;  
    printf("Enter total line : ");  
    scanf("%d",&n);  
    for(i=n,k=1;i>=1;i--,k=k+2){  
        for(j=1;j<i;j++){  
  
            printf(" ");  
        }  
        for(j=1;j<=k;j++){  
            printf("*");  
        }  
        printf("\n");  
    }  
    return 0;  
}
```

- Make a program that will print given bellow:

Enter total line : 7

```
#include<stdio.h>
int main()
{
    int i,j,sum=0,n,k,p;
    printf("Enter total line : ");
    scanf("%d",&n);
    for(i=n;i>=1;i--){
        for(j=1;j<=n-i;j++){

            printf(" ");
        }
        for(j=1;j<=i+(i-1);j++){
            printf("*");
        }
        printf("\n");
    }
    return 0;
}
```

- **Make a program that will print given bellow:**
Enter total line : 5

```
  *
 * *
* * *
* * * *
* * * * *
```

```
#include<stdio.h>
int main()
{
    int i,j,n;
    printf("Enter total line : ");
    scanf("%d",&n);
    for(i=n;i>=1;i--){
        for(j=1;j<i;j++){

            printf(" ");
        }
        for(j=i;j<=n;j++){
            printf("* ");
        }
        printf("\n");
    }
    return 0;
}
```

```
or,  
#include<stdio.h>  
int main()  
{  
    int i,j,n,k;  
    printf("Enter total line : ");  
    scanf("%d",&n);  
    for(i=n,k=1;i>=1;i--,k=(k+2)-1){  
        for(j=1;j<i;j++){  
  
            printf(" ");  
        }  
        for(j=1;j<=k;j++){  
            printf("* ");  
        }  
        printf("\n");  
    }  
    return 0;  
}
```

- Make a program that will print given bellow:

Enter total line : 5

*** * * * ***

*** * * ***

*** * ***

*** ***

```
#include<stdio.h>
int main()
{
    int i,j,n;
    printf("Enter total line : ");
    scanf("%d",&n);
    for(i=n;i>=1;i--){
        for(j=1;j<=n-i;j++){

            printf(" ");
        }
        for(j=1;j<=i;j++){
            printf("* ");
        }
        printf("\n");
    }
    return 0;
}
```


- **Make a program that will print given bellow:**
Enter total line : 7

```
      *
    * *
  * * *
* * * *
* * * * *
* * * * * *
* * * * * * *
* * * * * * *
* * * * *
* * * *
* * *
```

```
#include<stdio.h>
int main()
{
    int i,j,n;
    printf("Enter total line : ");
    scanf("%d",&n);
    for(i=1;i<=n;i++){
        for(j=n;j>i;j--){

            printf(" ");
        }
        for(j=1;j<=i;j++){
            printf("* ");
        }
        printf("\n");
    }
}
```

```
for(i=n-1;i>=1;i--){  
    for(j=1;j<=n-i;j++){  
  
        printf(" ");  
    }  
    for(j=1;j<=i;j++){  
        printf("* ");  
    }  
    printf("\n");  
}  
return 0;  
}
```

```
or,  
#include<stdio.h>  
int main()  
{  
    int i,j,n;  
    printf("Enter total line : ");  
    scanf("%d",&n);  
    for(i=n;i>=1;i--){  
        for(j=1;j<i;j++){  
  
            printf(" ");  
        }  
        for(j=i;j<=n;j++){  
            printf("* ");  
        }  
        printf("\n");  
    }  
    for(i=n-1;i>=1;i--){  
        for(j=1;j<=n-i;j++){  
  
            printf(" ");  
        }  
        for(j=1;j<=i;j++){  
            printf("* ");  
        }  
        printf("\n");  
    }  
    return 0;  
}
```

```
or,  
#include<stdio.h>  
int main()  
{  
    int i,j,n;  
    printf("Enter the number do you want:");  
    scanf("%d",&n);  
  
    for(i=1;i<=n;i++){  
        for(j=1;j<=n-i;j++){  
            printf(" ");  
        }  
        for(j=1;j<=i;j++){  
            printf("* ");  
        }  
        printf("\n");  
    }  
    for(i=n-1;i>=1;i--){  
        for(j=1;j<=n-i;j++){  
            {  
                printf(" ");  
            }  
            for(j=1;j<=i;j++){  
                printf("* ");  
            }  
            printf("\n");  
        }  
        return 0;  
    }  
}
```

- **Make a program that will print given bellow:**
Enter total line : 7

```

      *
    ***
  *****
*****
*****
*****
*****
*****
*****
*****
*****
*****
*****
*****

```

```
#include<stdio.h>

int main()

{
    int i,j,n;
    printf("Enter total line : ");
    scanf("%d",&n);
    for(i=1;i<=n;i++){
        for(j=i;j<n;j++){

            printf(" ");
        }
        for(j=1;j<=i+(i-1);j++){
            printf("*");
        }
        printf("\n");
    }
}
```

```

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

        printf(" ");
    }
    for(j=1;j<=i+(i-1);j++){
        printf("*");
    }
    printf("\n");
}
return 0;
}

```

or,

```

#include<stdio.h>
int main()
{
    int i,j,n,k;
    printf("Input : ");
    scanf("%d",&n);
    char a[2*n-1][2*n-1];
    char c=' ',b='*';
    for(i=0;i<2*n-1;i++){
        for(j=0;j<2*n-1;j++){
            if(j>=(n-1)-i && j<=(n-1)+i && i<n || j>=i-(n-1)
&& j<=3*(n-1)-i && i>n-1){
                a[i][j]=b;
            }
            else
                a[i][j]=c;
        }
    }
}

```

```
}  
}  
for(i=0;i<2*n-1;i++){  
    for(j=0;j<2*n-1;j++){  
        printf("%c",a[i][j]);  
    }  
    printf("\n");  
}  
return 0;  
}
```

- **Make a program that will print given bellow:**
Enter total line : 5

*** * * * ***

*** * * * ***

*** * * * ***

*** * * * ***

*** * * * ***

```
#include<stdio.h>
int main()
{
    int i,j,n;
    printf("Enter total line : ");
    scanf("%d",&n);
    for(i=1;i<=n;i++){
        for(j=1;j<=i;j++){
            printf(" ");
        }
        for(j=1;j<=n;j++){
            printf("* ");
        }
        printf("\n");
    }
    return 0;
}
```


- **Make a program that will print given bellow:**

Input : 5

```
*
**
***
****
*****
*****
  ****
    ***
      **
        *
```

```
#include<stdio.h>
int main()
{
    int i,j,n;
    printf("Input : ");
    scanf("%d",&n);
    for(i=1;i<=n;i++){

        for(j=1;j<=i;j++){
            printf("*");
        }
        printf("\n");
    }
    for(i=n;i>=1;i--){
        for(j=1;j<=n-(i-1);j++){

            printf(" ");
        }
    }
}
```

```
for(j=1;j<=i;j++){  
    printf("*");  
}  
printf("\n");  
}  
return 0;  
}
```

- Make a program that will print given bellow:

Input : 5

```
$ @ @ @ @
# $ @ @ @
# # $ @ @
# # # $ @
# # # # $
```

```
#include<stdio.h>
int main()
{
    int i,j,n;
    printf("Input : ");
    scanf("%d",&n);
    char a[n][n];
    char c='$',b='@',d='#';
    for(i=0;i<n;i++){
        for(j=0;j<n;j++){
            if(i==j){
                a[i][j]=c;
            }
            if(i<j){
                a[i][j]=b;
            }
            if(i>j){
                a[i][j]=d;
            }
        }
    }
    for(i=0;i<n;i++){
```

```

for(j=0;j<n;j++){
    printf("%c ",a[i][j]);
}
printf("\n");
}
return 0;
}

```

- **Make a program that will print given bellow:**

Input : 5

```

    @ @ @ @
#   @ @ @
#  #   @ @
#  #  #   @
#  #  #  #

```

```

#include<stdio.h>
int main()
{
    int i,j,n;
    printf("Input : ");
    scanf("%d",&n);
    char a[n][n];
    char c=' ',b='@',d='#';
    for(i=0;i<n;i++){
        for(j=0;j<n;j++){
            if(i==j){
                a[i][j]=c;
            }
            if(i<j){

```

```

a[i][j]=b;
    }
    if(i>j){
        a[i][j]=d;
    }
}
}
for(i=0;i<n;i++){
for(j=0;j<n;j++){
printf("%c ",a[i][j]);
}
printf("\n");
}
return 0;
}

```

- **Make a program that will print given bellow:**

Input : 5

```

# # # # # # # #
# # #     # # #
# #       # #
#         #

```

```

#         #
# #       # #
# # #     # # #
# # # #   # # # #

```

```

#include<stdio.h>
int main()
{
    int i,j,n,k;
    printf("Input : ");
    scanf("%d",&n);
    char a[2*n-1][2*n-1];
    char c='#',b=' ';
    for(i=0;i<2*n-1;i++){
        for(j=0;j<2*n-1;j++){
            if(j>=(n-1)-i && j<=(n-1)+i && i<n || j>=i-(n-
1) && j<=3*(n-1)-i && i>n-1){
                a[i][j]=b;
            }
            else
                a[i][j]=c;
        }
    }
    for(i=0;i<2*n-1;i++){
        for(j=0;j<2*n-1;j++){
            printf("%c ",a[i][j]);
        }
        printf("\n");
    }
    return 0;
}

```

- Make a program that will print given bellow:

Enter total line : 5

```

      *           *
    ***         ***
  *****       *****
*****          *****
*****          *****
*****          *****
  *****       *****
    ***         ***
      *           *
  
```

```

#include<stdio.h>
int main()
{
    int i,j,n,k,l;
    printf("Enter total line : ");
    scanf("%d",&n);
    for(i=1,k=2*n-1;i<=n;i++,k=k-2){
        for(j=i;j<n;j++){

            printf(" ");
        }
        for(j=1;j<=2*i-1;j++){
            printf("*");
        }
        for(j=1;j<k;j++){
            printf(" ");
        }
        for(j=1;j<=2*i-1;j++){
            printf("*");
        }
    }
}
  
```

```

}
    printf("\n");
}
for(i=n-1,k=2;i>=1;k++,i--){
    for(j=1;j<=n-i;j++){

        printf(" ");
    }
    for(j=1;j<=2*i-1;j++){
        printf("*");
    }
    l=2*k-1;
    for(j=1;j<l;j++){
        printf(" ");
    }
    for(j=1;j<=2*i-1;j++){
        printf("*");
    }
    printf("\n");
}
return 0;
}

```


- Make a program that will print given bellow:

Enter total line : 5

```

      *           *
    ***         ***
  *****       *****
*****          *****
*****          *****
*****          *****
  *****       *****
    ***         ***
      *           *
  
```

```

#include<stdio.h>
int main()
{
    int i,j,n,k,l;
    printf("Enter total line : ");
    scanf("%d",&n);
    for(i=1,k=2*n;i<=n;i++,k=k-2){
        for(j=i;j<n;j++){

            printf(" ");
        }
        for(j=1;j<=2*i-1;j++){
            printf("*");
        }
        for(j=1;j<k;j++){
            printf(" ");
        }
        for(j=1;j<=2*i-1;j++){
  
```

```

printf("*");
}
printf("\n");
}
for(i=n-1,k=2;i>=1;k++,i--){
    for(j=1;j<=n-i;j++){

        printf(" ");
    }
    for(j=1;j<=2*i-1;j++){
        printf("*");
    }
    l=2*k-1;
    for(j=1;j<=l;j++){
        printf(" ");
    }
    for(j=1;j<=2*i-1;j++){
        printf("*");
    }
    printf("\n");
}
return 0;
}

```

- **Make a program that will print given bellow:**
Enter total line : 7

[illegible]

```
#include<stdio.h>
int main()
{
    int i,j,n,k,l;
    printf("Enter total line : ");
    scanf("%d",&n);
    for(i=1,k=2*n;i<=n;i++,k=k-2){
        for(j=i;j<n;j++){
            printf(" ");
        }
        for(j=1;j<=2*i-1;j++){
            printf("*");
        }
        for(j=1;j<k;j++){
            printf(" ");
        }
        for(j=1;j<=2*i-1;j++){
            printf("*");
        }
        printf("\n");
    }
    return 0;
}
```

- Make a program that will print given bellow:

Input: 5

```

    *      *
  ***    ***
*****
  ***    ***
    *      *

```

```

#include<stdio.h>
int main()
{
    int i,j,n,k,l;
    printf("Input: ");
    scanf("%d",&n);
    n=n-2;
    for(i=1,k=2*n-1;i<=n;i++,k=k-2){
        for(j=i;j<n;j++){

            printf(" ");
        }
        for(j=1;j<=2*i-1;j++){
            printf("*");
        }
        for(j=1;j<k;j++){
            printf(" ");
        }
        for(j=1;j<=2*i-1;j++){
            printf("*");
        }
        printf("\n");
    }
}

```

```
for(i=n-1,k=2;i>=1;k++,i--){
    for(j=1;j<=n-i;j++){

        printf(" ");
    }
    for(j=1;j<=2*i-1;j++){
        printf("*");
    }
    l=2*k-1;
    for(j=1;j<l;j++){
        printf(" ");
    }
    for(j=1;j<=2*i-1;j++){
        printf("*");
    }
    printf("\n");
}
return 0;
}
```

- **Make a program that will print given bellow:**

Enter input : 5

@@@@@

@@@

@

@@@

@@@@@

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

```
int main()
```

```
{
```

```
int n,i,j,k;
```

```
printf("Enter input : ");
```

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

```
while(n%2==0){
```

```
printf("Incorrect input. Please, give odd number  
: ");
```

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

```
}
```

```
char x[n][n];
```

```
char a='?',b='@',c=' ';
```

```
for(i=0,k=n-1;i<n;i++,k--){
```

```
for(j=0;j<n;j++){
```

```
if(i<=j && k>=j || i>=j && k<=j){
```

```
x[i][j]=b;
```

```
}
```

```
else
```

```
x[i][j]=c;
```

```
}
```

```
}
```

```
for(i=0,k=n-1;i<n;i++,k--){  
    for(j=0;j<n;j++){  
        printf("%c",x[i][j]);  
    }  
    printf("\n");  
}  
}
```

- Make a program that will print given bellow:

Enter input : 5

```
@    @
  @  @
    ?
  @  @
@    @
```

```
#include<stdio.h>
int main()
{
    int n,i,j,k;
    printf("Enter input : ");
    scanf("%d",&n);
    while(n%2==0){
        printf("Incorrect input. Plese, give odd number
: ");
        scanf("%d",&n);
    }
    char x[n][n];
    char a='?',b='@',c=' ';
    for(i=0,k=n-1;i<n;i++,k--){
        for(j=0;j<n;j++){
            if(i==j && i!=k || k==j && i!=k ){
                x[i][j]=b;
            }
            else if(i==j && i==k){
                x[i][j]=a;
            }
        }
    }
}
```



```

else
    x[i][j]=c;
}
}
for(i=0,k=n-1;i<n;i++,k--){
    for(j=0;j<n;j++){
        printf("%c",x[i][j]);
    }
    printf("\n");
}
}

```

- **Make a program that will print given bellow:**

Enter input : 8

Incorrect input. Please, give odd number : 7

```

@  @
@  @
@  @
  @
@  @
@  @
@  @

```

```

#include<stdio.h>
int main()
{
    int n,i,j,k;
    printf("Enter input : ");
    scanf("%d",&n);
    while(n%2==0){
        printf("Incorrect input. Please, give odd number
: ");
        scanf("%d",&n);
    }
    char x[n][n];
    char a='?',b='@',c=' ';
    for(i=0,k=n-1;i<n;i++,k--){
        for(j=0;j<n;j++){
            if(i==j || k==j){
                x[i][j]=b;
            }
            else
                x[i][j]=c;
        }
    }
    for(i=0,k=n-1;i<n;i++,k--){
        for(j=0;j<n;j++){
            printf("%c",x[i][j]);
        }
        printf("\n");
    }
}

```

- Make a program that will print given bellow:

Enter input : 5

```
#           &
&&        ##
###       &&&
&&&&     ####
#####&&&&&
```

```
#include<stdio.h>
int main()
{
    int n,i,j,k;
    printf("Enter input : ");
    scanf("%d",&n);
    char x[n][2*n];
    char a='&',b='#',c='#',d=' ';
    for(i=0,k=2*n-1;i<n;i++,k--){
        for(j=0;j<2*n;j++){
            if(i<j && k>j){
                x[i][j]=d;
            }
            else if(j<n && (i%2!=0)){
                x[i][j]=a;
            }
            else if(j>=n && (i%2==0)){
                x[i][j]=a;
            }
            else
                x[i][j]=c;
        }
    }
}
```

```

for(i=0,k=2*n-1;i<n;i++,k--){
    for(j=0;j<2*n;j++){
        printf("%c",x[i][j]);
    }
    printf("\n");
}
}

```

- Make a program that will print given bellow:

5

```

@ @ @ @ @
@ @   @ @
@   @   @
@ @   @ @
@ @ @ @ @

```

```

//Number 7 :
#include<stdio.h>
int main()
{
    int n,i,j,k;
    scanf("%d",&n);
    while(n%2==0){
        printf("Incorrect input. Please, give odd number :
");
        scanf("%d",&n);
    }
    char x[n][n];
    char a='@',b=' ';
    for(i=0,k=n-1;i<n;i++,k--){
        for(j=0;j<n;j++){
            if(i==(n-1)/2 && j==((n-1)/2)-1 || i==(n-1)/2 &&
j==((n-1)/2)+1 || i==((n-1)/2)-1 && j==(n-1)/2 || i==
((n-1)/2)+1 && j==(n-1)/2)
                x[i][j]=b;
            else
                x[i][j]=a;
        }
    }
    for(i=0,k=n-1;i<n;i++,k--){
        for(j=0;j<n;j++){
            printf("%c ",x[i][j]);
        }
        printf("\n");
    }
}

```

- **Make a program that will print given bellow:**

```
#include<stdio.h>
int main()
{
    int i,j,k,l,n=10;
    char a[12][33],h='*',b=' ';
    for(i=0;i<12;i++){
        for(j=0;j<17;j++){
            if(i<3 && j>=(n-8)-i && j<=(n-5)+i){
                a[i][j]=h;
            }
            else if(i<3 && j>=(n+1)-i && j<=(n+4)+i){
                a[i][j]=h;
            }
            else if(i>2 && j>=i-3 && j<=19-i){
                a[i][j]=h;
            }
            else
                a[i][j]=b;
        }
    }
}
```

```
}  
}  
for(i=0;i<12;i++){  
    for(j=0;j<17;j++){  
        printf("%c",a[i][j]);  
    }  
    printf("\n");  
}  
return 0;  
}
```

- Make a program that will print given bellow:

```

      * * * *           * * * *
    * * * * * *       * * * * * *
  * * * * * * * * *   * * * * * * * *
* * * * * * * * * * * * * * * * *
* * * * * * * * * * * * * * * *
  * * * * * * * * * * * * * * *
    * * * * * * * * * * * * * *
      * * * * * * * * * * * *
        * * * * * * * * * *
          * * * * * * * *
            * * * * *
              * * *
                *

```

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

```
int main()
```

```
{
```

```
int i,j,k,l,n=10;
```

```
char a[12][33],h='*',b=' ';
```

```
for(i=0;i<12;i++){
```

```
for(j=0;j<17;j++){
```

```
if(i<3 && j>=(n-8)-i && j<=(n-5)+i){
```

```
a[i][j]=h;
```

```
}
```

```
else if(i<3 && j>=(n+1)-i && j<=(n+4)+i){
```

```
a[i][j]=h;
```

```
}
```

```
else if(i>2 && j>=i-3 && j<=19-i){
```

```
a[i][j]=h;
```

```
}
```

```
else
```

```
a[i][j]=b;
```



```
    }  
}  
for(i=0;i<12;i++){  
    for(j=0;j<17;j++){  
        printf("%c ",a[i][j]);  
    }  
    printf("\n");  
}  
return 0;  
}
```

- [illegible]

```
#include<stdio.h>
int main()
{
    int i,j,k,n=10,d;
    char love[13][31],c='*',b=' ';
    for(i=0,k=0;i<13;i++,k=k+2){
        if(i==5){
            k=k-1;
        }
        for(j=0;j<31;j++){
            if(i<3 && ((j>=(n-7)-k && j<=(n-1)+k) || (j>=
(2*n+1)-k && j<=(2*n+7)+k))){
                love[i][j]=c;
            }
            else if(i>2 && (j>=k-7 && j<=37-k) || (i==12 &&
j==15 )){
                love[i][j]=c;
            }
        }
    }
}
```

```

}
else
love[i][j]=b;
}
}
for(i=0;i<13;i++){
for(j=0;j<31;j++){
printf("%c",love[i][j]);
}
printf("\n");
}
return 0;
}

```

```

or,
#include<stdio.h>
int main()
{
int i,j,k,n=10;
for(i=0,k=0;i<13;i++,k=k+2){
if(i==5){
k=k-1;
}
for(j=0;j<31;j++){
if(i<3 && ((j>=(n-7)-k && j<=(n-1)+k) || (j>=
(2*n+1)-k && j<=(2*n+7)+k))){
printf("*");
}
else if(i>2 && (j>=k-7 && j<=37-k) || (i==12
&& j==15 )){
printf("*");
}
}
}

```

```
        else  
            printf(" ");  
    }  
    printf("\n");  
}  
return 0;  
}
```

- Make a program that will print given bellow:
Enter your crash name : Hrdz
Enter your name : Hamim
Enter your favourite letter/digit : .

```

*****          .....          *****
*****
*****          .....          *****
*****
      *****          .....          *****          *****
      *****          .....          *****          *****
      *****          ..... Hrdz .....          *****
*****
      *****          ..... + .....          *****
*****
      *****          ..... Hamim .....          *****
*****
      *****          .....          *****          *****
      *****          .....          *****          *****
      *****          .....          *****          *****
      *****          .....          *****          *****
*****          ...
*****
*****          .
*****

```

```

#include<stdio.h>
#include<string.h>
int main()
{
    int i,j,k,n=10,d,z;
    char Love[13][31],l_u[13]
[31],star='*',special_character,blank='
',Lover_name[20],Your_name[20];
    printf("Enter your crush name : ");
    gets(Lover_name);
    printf("Enter your name : ");
    gets(Your_name);
    printf("Enter your special letter/digit : ");
    scanf("%c",&special_character);
    printf("\n\n");
    int s,l,c,p,m,g;
    s=strlen(Lover_name);
    l=strlen(Your_name);
    c=15-(s/2);
    p=c+s;
    m=15-(l/2);
    g=m+l;
    for(i=0,k=0;i<13;i++,k=k+2){
        if(i==5){
            k=k-1;
        }
        for(j=0;j<31;j++){
            if(i==4 && j>=c && j<p){
                Love[i][c-1]=blank;
                for(d=0,j=c; Lover_name[d]!='\0';d++,j++){
                    Love[i][j]=Lover_name[d];
                }
            }
        }
    }
}

```

```

        if(Lover_name[d+1]=='\0'){
            Love[i][j+1]=blank;
        }
    }
}
else if(i==6 && j>=m && j<g){
    Love[i][m-1]=blank;
    for(d=0,j=m; Your_name[d]!='\0';d++,j++){
        Love[i][j]=Your_name[d];
        if(Lover_name[d+1]=='\0'){
            Love[i][j+1]=blank;
        }
    }
    else
        Love[i][j+1]=blank;
}
}
else if(i<3 && ((j>=(n-7)-k && j<=(n-1)+k) ||
(j>=(2*n+1)-k && j<=(2*n+7)+k))){
    Love[i][j]=special_character;
}
else if(i>2 && j>=k-7 && j<=37-k || i==12 &&
j==15 ){
    Love[5][14]=blank;
    Love[5][16]=blank;
    if(i==5 && j==15){
        Love[i][j]='+';
    }
    else
        Love[i][j]=special_character;
}
else

```

```

        Love[i][j]=blank;
    }
}
for(i=0;i<13;i++){
    for(z=0;z<31;z++){
        if((i<2 || i>10) && z>=0 && z<=7){
            l_U[i][z]=star;
        }
        else if(i>1 && i<11 && z>=2 && z<=5){
            l_U[i][z]=star;
        }
        else if((i>=0 && i<=10) && (z>=8 && z<=11 ||
z>=24 && z<=27)){
            l_U[i][z]=star;
        }
        else if(i==11 && (z>=8 && z<=27) || i==12
&& (z>=9 && z<=26)){
            l_U[i][z]=star;
        }
        else
            l_U[i][z]=blank;
    }
}
for(i=0;i<13;i++){
    z=0;
    while(z<8){
        printf("%c",l_U[i][z]);
        z++;
    }
    if(z==8){
        printf("\t");
    }
}

```



```
j=0;
while(j<31){
    printf("%c",Love[i][j]);
    j++;
}
if(j==31){
    printf("\t\t");
}
while(z<31){
    printf("%c",I_U[i][z]);
    z++;
}
printf("\n");
}
printf("\n");
return 0;
}
```

- **Make a program that will print given bellow:**
Enter total line : 7

```

      *
    ***
  *****
*****
*****
*****
*****
*****
*****
*****
*****
*****
*****
*****

```



C-PROGRAMMING
(PATTERN)
T.I.M. HA-MEAM

ABC
PROKASHONI