1)

```
* * * * *                      * * * * *        * * * * *
* * * * *                    * * * * *          * * * * *
* * * * *                  * * * * *              * * * * *
* * * * *                * * * * *                  * * * * *
* * * * *              * * * * *                      * * * * *
   (i)                    (ii)                        (iii)
```

2)

```
* * * * *                      * * * * *        * * * * *
*       *                    *       *          *       *
*       *                  *       *              *       *
*       *                *       *                  *       *
* * * * *              * * * * *                      * * * * *
  (i)                    (ii)                        (iii)
```

3)

```
* * * * *              * * * * *              * * * * *
* *   *               *    * *                 *   *
*   *   *             *   *   *                   *
*     * *             * *     *               *       *
* * * * *             * * * * *               * * * * *
   (i)                  (ii)                     (iii)
```

4)

```
*
* *
* * *
* * * *
* * * * *
  (i)
```

```
        *
       * *
      * * *
     * * * *
    * * * * *
      (ii)
```

```
        *
       * * *
      * * * * *
     * * * * * * *
    * * * * * * * * *
       (iii)
```

5)

```
*
* *
*   *
*     *
* * * * *
  (i)
```

```
        *
       * *
      *   *
     *     *
     * * * * *
       (ii)
```

```
        *
      *   *
     *       *
    *           *
    * * * * * * * * *
       (iii)
```

6)

```
* * * * *
* * * *
* * *
* *
*
  (i)
```

```
    * * * * *
      * * * *
        * * *
          * *
            *
      (ii)
```

```
    * * * * * * * *
      * * * * * *
        * * * * *
          * * *
            *
       (iii)
```

7)

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

(i)   (ii)   (iii)

8)

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

(i)   (ii)   (iii)

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

(iv)

9)

```
    *              * * * *   * * * *        * * * *   * * * *
    *              * * * *   * * * *        * * * *   * * * *
    *              * * * *   * * * *        * * * *   * * * *
    *              * * * *   * * * *        * * * *   * * * *
* * * * * * * *                                   *
    *              * * * *   * * * *        * * * *   * * * *
    *              * * * *   * * * *        * * * *   * * * *
    *              * * * *   * * * *        * * * *   * * * *
    *              * * * *   * * * *        * * * *   * * * *
    *
   (i)               (ii)                     (iii)
```

10)

```
   * * *                          * * *
 * * * * *                      *       *
 * * * * *                      *       *
 * * * * *                      *       *
   * * *                          * * *
 * * * * *                      *       *
 * * * * *                      *       *
 * * * * *                      *       *
   * * *                          * * *
   (i)                            (ii)
```

Pattern Solution:

==================

Pattern 1(i)

_____

```c
#include <stdio.h>

int main(){

    int rows,i,j;

    printf("Enter the number of rows:");
    scanf("%d", &rows);

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

}
```

Pattern 1(ii)

_____

```c
#include <stdio.h>

int main(){

    int rows,i,j,k;

    printf("Enter the number of rows:");
    scanf("%d", &rows);

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

}
```

Pattern 1(iii)

_____

```c
#include <stdio.h>

int main(){

    int rows,i,j,k;

    printf("Enter the number of rows:");
    scanf("%d", &rows);

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

}
```

Pattern 2(i)

_____

```c
#include <stdio.h>

int main(){

    int i,j,rows;

    printf("Enter the number of rows:");
    scanf("%d", &rows);

    for(i=1 ; i<=rows ; i++){

        for(j=1 ; j<=rows ; j++){
            if(i==1 || i==rows || j==1 || j==rows)
                printf("*");
            else
                printf(" ");
        }
        printf("\n");
    }
    return 0 ;

}
```

Pattern 2(ii)

_____

```c
#include <stdio.h>

int main(){

    int i,j,k,rows;

    printf("Enter the number of rows:");
    scanf("%d", &rows);

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

Pattern 2(iii)

_____

```c
#include <stdio.h>

int main(){

    int i,j,k,rows;

    printf("Enter the number of rows:");
    scanf("%d", &rows);

    for(i=1 ; i<=rows ; i++){
        for(k=1 ; k<=i ; k++){
            printf(" ");
        }

        for(j=1 ; j<=rows ; j++){
            if(i==1 || i==rows || j==1 || j==rows)
                printf("*");
            else
                printf(" ");
        }
        printf("\n");
    }
    return 0 ;

}
```

Pattern 3(i)

_____

```c
include <stdio.h>

int main(){

    int i,j,rows;

    printf("Enter the number of rows:");
    scanf("%d", &rows);

    for(i=1 ; i<=rows ; i++){

        for(j=1 ; j<=rows ; j++){
            if(i==1 || i==rows || j==1 || j==rows || i==j)
                printf("*");
            else
                printf(" ");
        }
        printf("\n");
    }
    return 0 ;

}
```

Pattern 3(ii)

_____

```c
#include <stdio.h>

int main(){

    int i,j,rows;

    printf("Enter the number of rows:");
    scanf("%d", &rows);

    for(i=1 ; i<=rows ; i++){

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

}
```

Pattern 3(iii)

_____

```c
#include <stdio.h>

int main(){

    int i,j,rows;

    printf("Enter the number of rows:");
    scanf("%d", &rows);

    for(i=1 ; i<=rows ; i++){

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

}
```

Pattern 4(i)

_____

```c
#include <stdio.h>

int main(){

    int i,j,rows;

    printf("Enter the number of rows:");
    scanf("%d", & rows);

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

}
```

Pattern 4(ii)

_____

```c
#include <stdio.h>

int main(){

    int i,j,k,rows;

    printf("Enter the number of rows:");
    scanf("%d", & rows);

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

}
```

Pattern 4(iii)

_____


```c
#include <stdio.h>

int main(){

    int i,j,k,rows;

    printf("Enter the number of rows:");
    scanf("%d", & rows);

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

}
```

Pattern 5(i)

_____

```c
#include <stdio.h>

int main(){

  int i,j,rows;

  printf("Enter the number of rows:");
  scanf("%d", & rows);

  for(i=1 ; i<=rows ; i++){
    for(j=1 ; j<=i ; j++){
      if(i==1 || i==rows || j==1 || j==i)
        printf("*");
      else
        printf(" ");
    }
    printf("\n");
  }
  return 0;

}
```

Pattern 5(ii)

_____

```c
#include <stdio.h>

int main(){

    int i,j,k,rows;

    printf("Enter the number of rows:");
    scanf("%d", & rows);

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

}
```

Pattern 5(iii)

_____

```c
#include <stdio.h>

int main(){

    int i,j,k,rows;

    printf("Enter the number of rows:");
    scanf("%d", &rows);

    for(i=1 ; i<=rows ; i++){

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

    return 0 ;
}
```

Pattern 6(i)

_____

```c
#include <stdio.h>

int main(){

    int i,j,rows;

    printf("Enter the number of rows :");
    scanf("%d", &rows);

    for(i=1 ; i<=rows ; i++){

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

Pattern 6(ii)

_____

```c
#include <stdio.h>

int main(){

    int i,j,k,rows;

    printf("Enter the number of rows :");
    scanf("%d", &rows);

    for(i=1 ; i<=rows ; i++){

        for(k=1 ; k<=i ; k++){
            printf(" ");
        }

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

Pattern 6(iii)

_____

```c
#include <stdio.h>

int main(){

    int i,j,k,rows;

    printf("Enter the number of rows:");
    scanf("%d", & rows);

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

}
```

Pattern 7(i)

_____

```c
#include <stdio.h>

int main(){

    int i,j,rows;

    printf("Enter the number of rows :");
    scanf("%d", &rows);

    for(i=1 ; i<=rows ; i++){

        for(j=i ; j<=rows ; j++){
            if(i==1 || i==rows || j==i || j==rows)
                printf("*");
            else
                printf(" ");

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

Pattern 7(ii)

_____

```c
#include <stdio.h>

int main(){

    int i,j,k,rows;

    printf("Enter the number of rows :");
    scanf("%d", &rows);

    for(i=1 ; i<=rows ; i++){

        for(k=1 ; k<=i ; k++){
            printf(" ");
        }

        for(j=i ; j<=rows ; j++){
            if(i==1 || i==rows || j==i || j==rows)
                printf("*");
            else
                printf(" ");

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