

pattern1

Write a C program that reads in a positive number on height between 1 and 9, and prints a triangular pattern according to height. For example, if the height is 9, then the following pattern will be printed. There is no need to check user input errors in your program.

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

A sample program template is given below:

```
#include <stdio.h>
int main()
{
    /* Write your code here */
    return 0;
}
```

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

    printf("Enter the height:\n");
    scanf("%d",&height);
    printf("The pattern is:\n");
    for(i=0;i<height;i++)
    {
        for(j=0;j<height-i-1;j++)
        {
            printf(" ");
        }
        for(j=0;j<=i;j++)
        {
            printf("**");
        }
        for(j=0;j<i;j++)
        {
            printf("**");
        }
        printf("\n");
    }
    return 0;
}
```

Sample input and output sessions are given below:

(1) Test Case 1:

Enter the height:

5

The pattern is:

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

(2) Test Case 2:

Enter the height:

8

The pattern is:

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