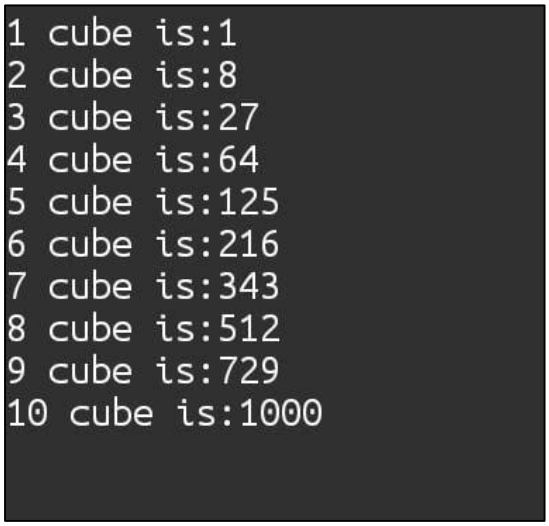
Task No. 1: Cube series without using power math function. (Use For loop).

Solution:

```
using System;
using System.Linq;


namespace Hammad
{
        public static class Program
        {
                public static void Main()
                {
for(int a =1;a<=10;a++)
Console.Write("{0} cube is:{1}\n",a,a*a*a);
Console.WriteLine();
                }
        }
}
```

Output:

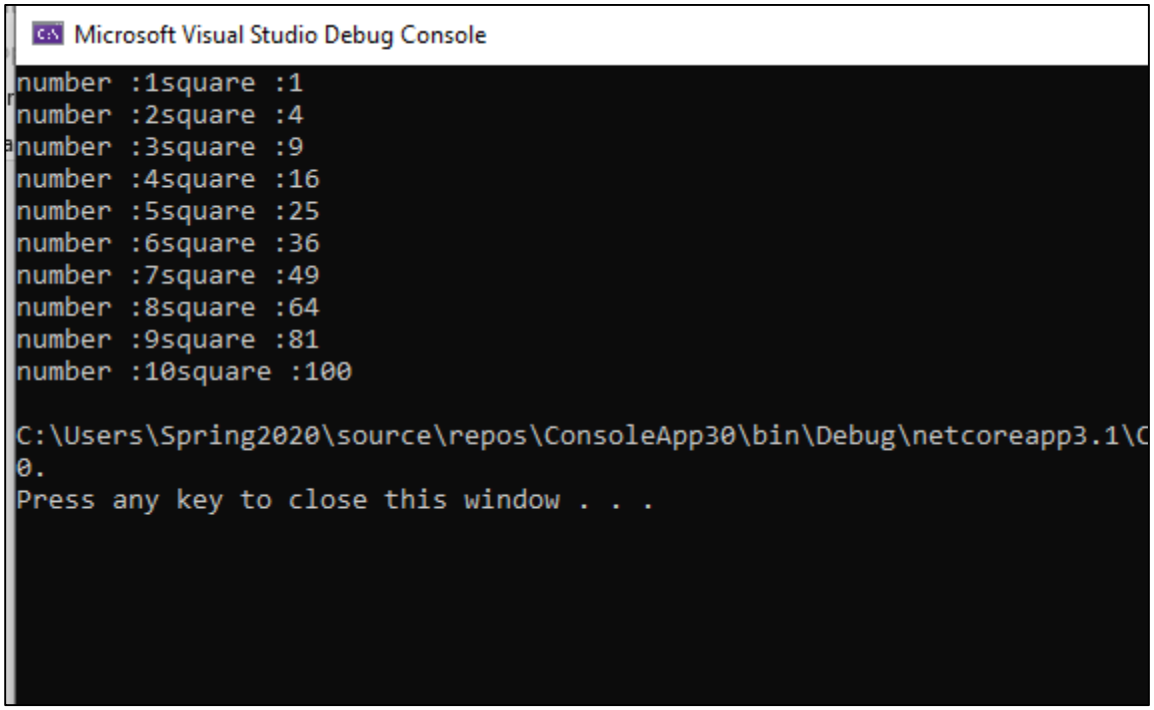


Task No. 2: Square series without using power math function. (Use For loop)

Solution:

```
using System;

namespace ConsoleApp30
{
    class Program
    {
        static void Main(string[] args)
        {
            for (int i = 1; i <= 10; i++)
            { Console.WriteLine("number :" +i +"square :" +i*i); }

        }
    }
}
```

Output:



Task No. 3: Repeatedly print the value of the variable x Value, decreasing it by 0.5 each time, as long as x Value remains positive.

Solution:

```
using System;
using System.Linq;
namespace Lab_6
{
        public static class Program
        {
                public static void Main()
                {
Console.WriteLine("put the X value");
double i = Convert.ToInt32(Console.ReadLine());
for(double j=i;j>0;j-=0.5)
{ Console.WriteLine("X-0.5:"+j);
}
                }
        }
}
```

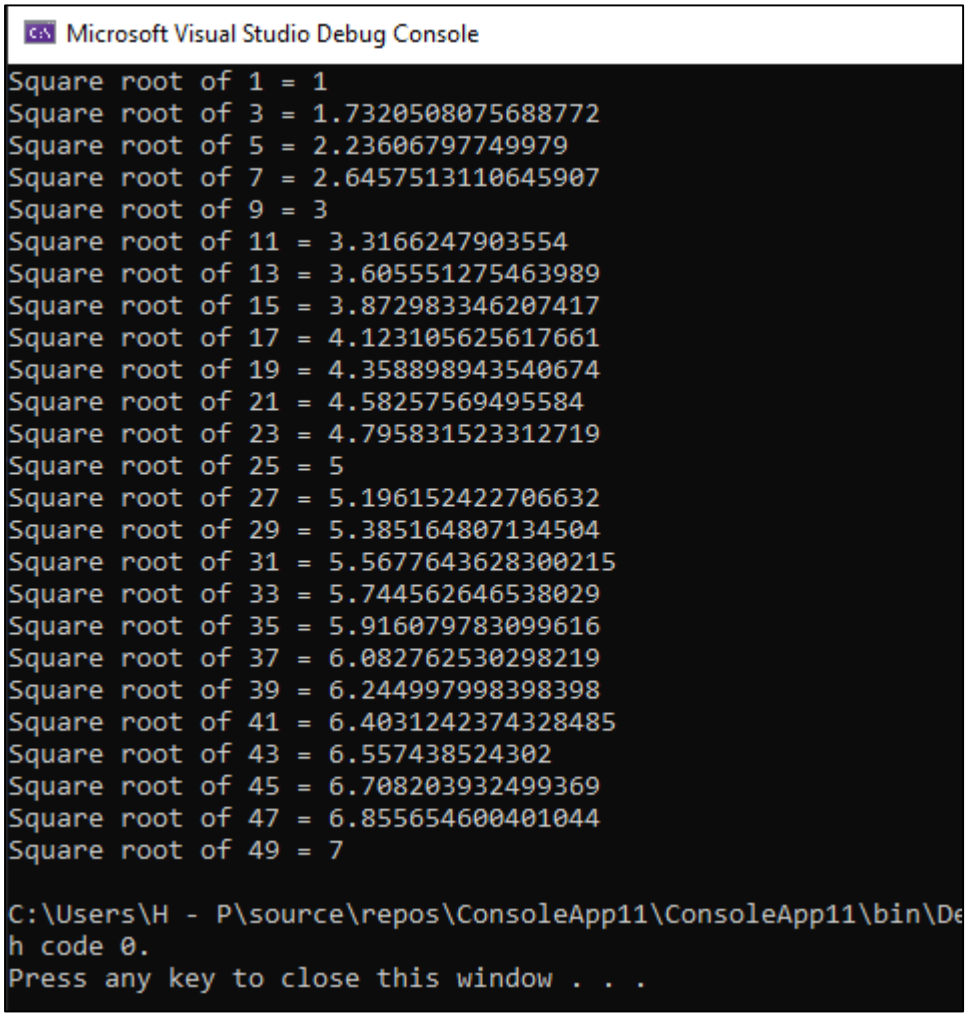
Output:

Task No. 4: Print the square roots of the first 25 odd positive integers.

Solution:

```
using System;

namespace ConsoleApp11
{
    class Program
    {
        static void Main(string[] args)
        {
            for (double i = 1, j = 1; i < 50; i += 2, j++)
            {
                Console.WriteLine("Square root of {0} = {1}", i,  Math.Sqrt(i));
            }

        }
    }
}
```

Output:

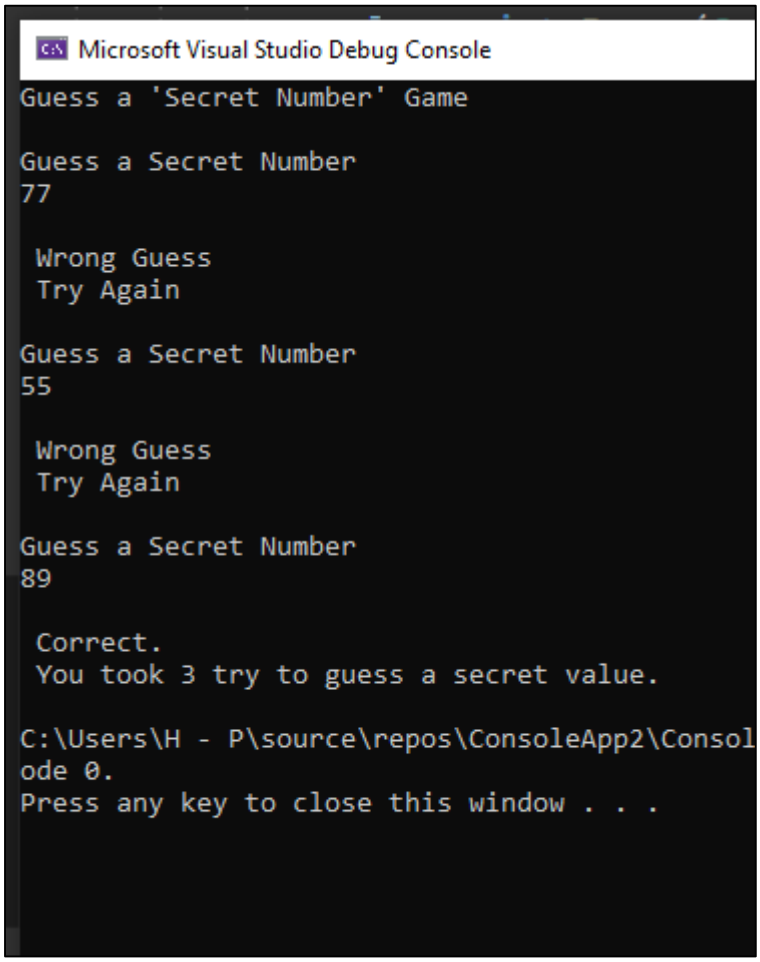


Task No. 5: Make a game in C#, in which give 5 tries to the user to guess the value of the number.

Solution:

```
using System;

namespace ConsoleApp2
{
    class Program
    {
        static void Main(string[] args)
        {
            int secret = 89, value, guess = 1;
            Console.WriteLine("Guess a \'Secret Number' Game");
            for (int i = 0; i < 5; guess++, i++)
            {
                Console.WriteLine("\nGuess a Secret Number");
                value = int.Parse(Console.ReadLine());
                if (value == secret)
                {
                    Console.WriteLine("\n Correct.\n You took {0} try to guess a secret
value.", guess);
                    break;
                }
                else
                {
                    Console.WriteLine(" \n Wrong Guess \n Try Again");
                }
            }

        }
    }
}
```

Output:

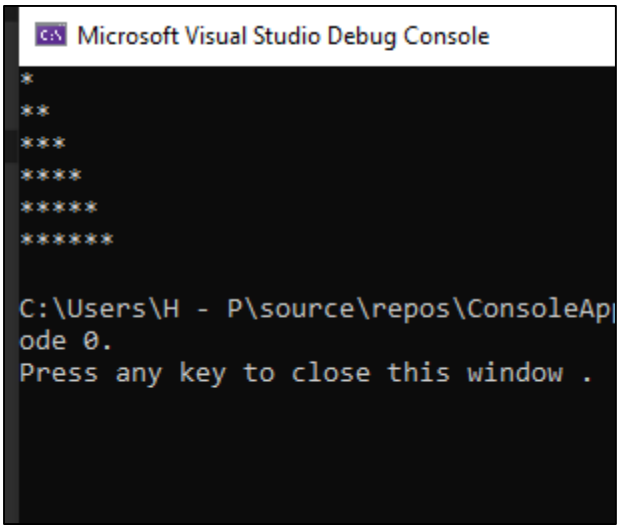

Microsoft Visual Studio Debug Console
Guess a 'Secret Number' Game
Guess a Secret Number
77
Wrong Guess
Try Again
Guess a Secret Number
55
Wrong Guess
Try Again
Guess a Secret Number
89
Correct.
You took 3 try to guess a secret value.
C:\Users\H - P\source\repos\ConsoleApp2\Consol
ode 0.
Press any key to close this window . . .

Task No. 6: Generate Stars using 2 for loops

Solution:

```
using System;

namespace ConsoleApp3
{
    class Program
    {
        static void Main(string[] args)
        {
            for(int i=1;i<7;i++)
            {
                for (int j = 1; i > j; j++)
                {
                    Console.Write("*");
                }
                Console.WriteLine("*");
            }
        }
    }
}
```

Output:



Task No. 7: Write a program that reads from the console a positive integer number N (N < 20) and prints a matrix of numbers as on the figures below:

N = 3 **N = 4.**

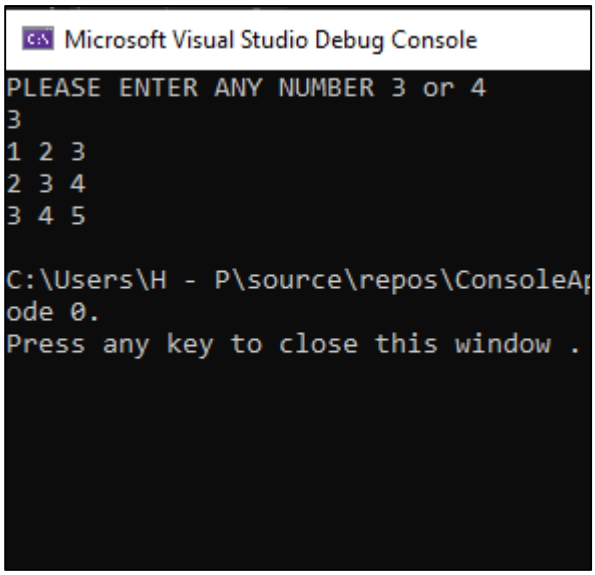
1	2	3
2	3	4
3	4	5

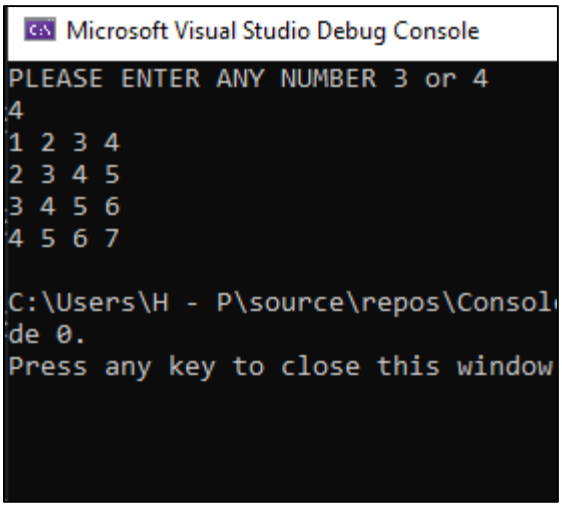
1	2	3	4
2	3	4	5
3	4	5	6
4	5	6	7

Solution:

```
using System;

namespace ConsoleApp4
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("PLEASE ENTER ANY NUMBER 3 or 4");
            int num = Convert.ToInt32(Console.ReadLine());
            if (num <= 20)
            {
                for (int i = 1; i <= num; i++)
                {
                    for (int j = 0; j < num; j++)
                    {
                        Console.Write("{0} ", i + j);
                    }
                    Console.WriteLine(" ");
                }
            }
            else
            {
                Console.WriteLine("Invalid Input");

            }
        }

    }
}
```

Output:


Microsoft Visual Studio Debug Console
PLEASE ENTER ANY NUMBER 3 or 4
3
1 2 3
2 3 4
3 4 5
C:\Users\H - P\source\repos\ConsoleAp
ode 0.
Press any key to close this window .


Microsoft Visual Studio Debug Console
PLEASE ENTER ANY NUMBER 3 or 4
4
1 2 3 4
2 3 4 5
3 4 5 6
4 5 6 7
C:\Users\H - P\source\repos\Consol
de 0.
Press any key to close this window

[Lab no. 06] **[COMPUTER PROGRAMING]**

[Introduction to LOOPS]

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