

1. Print triangle - and allow user to set height of it in. Like in the following case it's 4.

*

```
using System;
```

```
class Program
```

```
{
```

```
static void Main()
```

```
{
```

```
    Console.WriteLine("Enter the height of the triangle: ");
```

```
    int height = int.Parse(Console.ReadLine());
```

```
    PrintTriangle(height);
```

```
}
```

```
static void PrintTriangle(int height)
```

```
{
```

```
for (int i = 1; i <= height; i++)
```

```
{
```

```
    // Print spaces before each line
```

```
    for (int j = 0; j < height - i; j++)
```

```
    {
```

```
        Console.Write(" ");
```

```
    }
```

```
// Print stars for each line
```

```
    for (int k = 0; k < 2 * i - 1; k++)
```

```

{
    Console.Write("*");
}

// Move to the next line

    Console.WriteLine();

}

}

}

```

Output

Clear

^

```

mono /tmp/igQlTTUjYP.exe
Enter the height of the triangle: 4
  |*
 ***
*****
*****

```

2. Find valid date (MMDDYYYY) from string.

For example :-

Hdjsh asd2324234jghjsgd hjsdg sdhk 12212021 idf32432 32423 d34234jh dfh.

```
using System;
```

```
using System.Text.RegularExpressions;
```

```
class Program
```

```
{
```

```
    static void Main()
```

```
    {
```

```
        string input = "Hdjsh asd2324234jghjsgd hjsdg sdhk 12212021 idf32432 32423 d34234jh dfh";
```

```

string pattern = @"^b(\d{2})(\d{2})(\d{4})b";

MatchCollection matches = Regex.Matches(input, pattern);

foreach (Match match in matches)
{
    string month = match.Groups[1].Value;

    string day = match.Groups[2].Value;

    string year = match.Groups[3].Value;

    if (IsValidDate(int.Parse(month), int.Parse(day), int.Parse(year)))
    {
        string date = month + day + year;

        Console.WriteLine(date);
    }
}

static bool IsValidDate(int month, int day, int year)
{
    try
    {
        DateTime date = new DateTime(year, month, day);

        return true;
    }
}

```

```
        catch (ArgumentOutOfRangeException)
        {
            return false;
        }
    }
}
```

Output:

Output	Clear
mono /tmp/gAQeL998Ij.exe 12212021	