JAGGED ARRAY ROWS SUMS

```
using System;
class Program
{
   static void Main()
   {
      int[][] arr = {
         new int[] {1, 2, 3},
         new int[] {4, 5},
         new int[] {10}
      };
      for (int i = 0; i < arr.Length; i++)
      {
         int sum = 0;
         foreach (int n in arr[i])
            sum += n;
         Console.WriteLine($"Row {i} Sum = {sum}");
      }
   }
}
```

SWAP USING REF

```
using System;
```

```
class Program
{
   static void Swap(ref int a, ref int b)
   {
      int temp = a;
      a = b;
      b = temp;
   }
   static void Main()
   {
      int x = 5, y = 10;
      Swap(ref x, ref y);
      Console.WriteLine($"x = {x}, y = {y}");
   }
}
```

AREA USING IN AND OUT

```
using System;
class Program {
static void Area(in double b, in double h, out double result) {
result = 0.5 * b * h;
}
```

```
static void Main()
{
    Console.Write("Base: ");
    double b = double.Parse(Console.ReadLine());

    Console.Write("Height: ");
    double h = double.Parse(Console.ReadLine());

    Area(in b, in h, out double area);
    Console.WriteLine($"Area = {area}");
}
}
```

CIRCLE AREA AND PERIMETER

```
using System;

class Circle {

double r;

public Circle(double x) {

 r = x;

}

public double Area() => Math.PI * r * r;
public double Perimeter() => 2 * Math.PI * r;

static void Main()
{
    Console.Write("Enter Radius: ");
    double r = double.Parse(Console.ReadLine());

    Circle c = new Circle(r);
    Console.WriteLine("Area = " + c.Area());
    Console.WriteLine("Perimeter = " + c.Perimeter());
```

```
}
 }
```

AVERAGE OF BEST TWO MARKS

```
using System;
class Student
{
   int[] m = new int[3];
   public Student(int m1, int m2, int m3)
   {
      m[0] = m1; m[1] = m2; m[2] = m3;
   }
   public double BestTwoAvg()
   {
      Array.Sort(m);
      return (m[1] + m[2]) / 2.0;
   }
   static void Main()
   {
      Console.Write("Enter marks: ");
      int m1 = int.Parse(Console.ReadLine());
      int m2 = int.Parse(Console.ReadLine());
      int m3 = int.Parse(Console.ReadLine());
      Student s = new Student(m1, m2, m3);
      Console.WriteLine("Best Two Avg = " + s.BestTwoAvg());
```

```
    }
}
```

TIME VALIDATION

```
using System;
class Time
{
    int h, m, s;
    public void Read()
    {
        Console.Write("Hours: ");
        h = int.Parse(Console.ReadLine());

        Console.Write("Minutes: ");
        m = int.Parse(Console.ReadLine());

        Console.Write("Seconds: ");
        s = int.Parse(Console.ReadLine());
    }

    public void Display()
    {
        Console.WriteLine($"{h:D2}:{m:D2}:{s:D2}");
    }
    static void Main()
```

```
  {
    Time t = new Time();
    t.Read();
    t.Display();
  }
}
```

TRAFFIC SIGNALS

```
using System;
delegate void Signal();
class Program
{
  static void Yellow() => Console.WriteLine("Get Ready");
  static void Green()  => Console.WriteLine("Go");
  static void Red()    => Console.WriteLine("Stop");
  static void Main()
  {
    Signal s = Yellow; s();
    s = Green; s();
    s = Red; s();
  }
}
```