

Q1 WAP in c# using "this" keyword

using System;

```
class Program
{
    int x;

    public Program(int x)
    {
        this.x = x;
    }

    public void Display()
    {
        Console.WriteLine(this.x);
    }

    static void Main()
    {
        new Program(10).Display();
    }
}
```

Q2 Write a program in C# to find the square of a number :

- 1.Using pass by value
- 2.Using pass by reference

Here are examples of programs in C# that calculate the square of a number using pass by value and pass by reference:

using System;

```
class Program
{
    static void CalculateSquare(int num)
    {
        int square = num * num;
        Console.WriteLine($"Square of {num} is {square}");
    }

    static void Main()
    {
        int number = 5;
        Console.WriteLine("Before: " + number);
        CalculateSquare(number);
    }
}
```

```

        Console.WriteLine("After: " + number);
    }
}

using System;

class Program
{
    static void CalculateSquare(ref int num)
    {
        int square = num * num;
        Console.WriteLine($"Square of {num} is {square}");
        num = square; // Modify the original value
    }

    static void Main()
    {
        int number = 5;
        Console.WriteLine("Before: " + number);
        CalculateSquare(ref number);
        Console.WriteLine("After: " + number);
    }
}

```

Q3 Wap to find the integer and fractional part of a number using 'out keyword '

```

using System;

class Program
{
    static void Main()
    {
        double num = 123.456;
        int integerPart;
        double fractionalPart;

        SeparateNumber(num, out integerPart, out fractionalPart);

        Console.WriteLine("Integer Part: " + integerPart);
        Console.WriteLine("Fractional Part: " + fractionalPart);
    }

    static void SeparateNumber(double number, out int integerPart, out double fractionalPart)
    {
        integerPart = (int)number;
        fractionalPart = number - integerPart;
    }
}

```

```
}
```

Q4 Wap to find the smallest element in the array using System;

```
class Program
```

```
{
```

```
    static void Main()
```

```
    {
```

```
        int[] arr = { 10, 20, 3, 40, 5 };
```

```
        int smallest = FindSmallest(arr);
```

```
        Console.WriteLine("Smallest element: " + smallest);
```

```
    }
```

```
    static int FindSmallest(int[] arr)
```

```
    {
```

```
        int smallest = arr[0];
```

```
        for (int i = 1; i < arr.Length; i++)
```

```
        {
```

```
            if (arr[i] < smallest)
```

```
            {
```

```
                smallest = arr[i];
```

```
            }
```

```
        }
```

```
        return smallest;
```

```
    }
```

```
}
```