

C# Course

Program 1

Program to Find Sum, Difference, Product, Quotient and Remainder

Code to find sum of two numbers

```
int a, b, sum;
a = Convert.ToInt32(textBox1.Text);
b = Convert.ToInt32(textBox2.Text);
sum = a + b;
label3.Text = "Sum is " + sum;
```

Code to find difference between two numbers

```
int a, b, diff;
a = Convert.ToInt32(textBox1.Text);
b = Convert.ToInt32(textBox2.Text);
diff = a - b;
label3.Text = "Difference is " + diff;
```

Code to find multiplication of two numbers

```
int a, b, product;
a = Convert.ToInt32(textBox1.Text);
b = Convert.ToInt32(textBox2.Text);
product = a * b;
label3.Text = "Product is " + product;
```

Code to find quotient of two numbers

```
int a, b, quo;
a = Convert.ToInt32(textBox1.Text);
b = Convert.ToInt32(textBox2.Text);
quo = a / b;
label3.Text = "Quotient is " + quo;
```

Code to find remainder of two numbers

```
int a, b, rem;
a = Convert.ToInt32(textBox1.Text);
b = Convert.ToInt32(textBox2.Text);
rem = a % b;
label3.Text = "Remainder is " + rem;
```

The screenshot shows a Windows application window titled "Form1". Inside the window, there are two text boxes for input. The first text box is labeled "Enter First Number" and contains the value "100". The second text box is labeled "Enter Second Number" and contains the value "20". Below these text boxes, there are five buttons: "Add", "Subtract", "Multiply", "Quotient", and "Remainder". The "Add" button is highlighted with a blue border. At the bottom of the window, there is a label that displays "Sum is 120".

Program to find Area of Square

```
int side, area;  
side = Convert.ToInt32(textBox1.Text);  
area = side * side;  
label2.Text = "Area of Square is " + Convert.ToString(area);
```

Program to find Perimeter of square

```
int side, perimeter;  
side = Convert.ToInt32(textBox1.Text);  
perimeter = 4 * side;  
label2.Text = "Perimeter of Square is " +  
Convert.ToString(perimeter);
```

The screenshot shows a Windows Form titled "Form2". It has a light gray background. At the top, there is a label "Enter side of Square" followed by a text box containing the number "10". Below the text box, there are two buttons: "Area" and "Perimeter". At the bottom of the form, there is a label that reads "Area of Square is 100".

Program to find Area of Circle

```
double radius, area;  
radius = Convert.ToDouble("Enter Radius of Circle");  
area = Math.PI * radius * radius;  
label1.Text = "Area of Circle is " + radius;
```

Program to find Circumference of Circle

```
double radius, circumference;  
radius = Convert.ToDouble("Enter Radius of Circle");  
circumference = 2 * Math.PI * radius;  
label1.Text = "Circumference of Circle is " & circumference;
```

Form3

Enter Radius of Circle

Circumference

Area

label2

Program to find simple Interest

```
double p, r, t, si;
p = Convert.ToDouble(textBox1.Text);
r = Convert.ToDouble(textBox2.Text);
t = Convert.ToDouble(textBox3.Text);
si = (p * r * t) / 100;
label4.Text = "Simple Interest is " + Convert.ToString(si);
```

Form2

Enter Principal Amount

1000

Enter Rate of Interest in Years

3

Enter Time in Years

3

Calculate Simple Interest

Simple Interest is 90

Program to find Volume of box

```
double d, w, h, volume;  
d = Convert.ToDouble(textBox1.Text);  
w = Convert.ToDouble(textBox2.Text);  
h = Convert.ToDouble(textBox3.Text);  
volume = d * w * h;  
label4.Text = "Volume of Box is " + volume;
```

The screenshot shows a Windows Form titled "Form2". It contains three text boxes for input: "Enter Width of Box" with the value "30", "Enter Depth of Box" with the value "20", and "Enter Height of Box" with the value "10". Below these is a button labeled "Calculate Volume of Box". At the bottom left, a label displays the result: "Volume of Box is 6000".

Program to demonstrate if statement

```
int a, b;  
a = Convert.ToInt32(textBox1.Text);  
if (a % 5 == 0)  
{  
    label3.Text="Number " + Convert.ToString(a) + " is divisible by  
5";  
}  
else  
{  
    label3.Text="Number " + Convert.ToString(a) + " is not divisible  
by 5";  
}
```

The screenshot shows a Windows application window titled "Form2". Inside the window, the text "Check Whether Number is divisible by 5 or not" is displayed at the top. Below this, there is a label "Enter a Number" followed by a text box containing the value "2000". A "Check" button is positioned below the text box. At the bottom of the window, the result "Number 2000 is divisible by 5" is displayed.

Program to demonstrate while loop

```
int a, b, i=0;
    a = Convert.ToInt32(textBox2.Text);
    b = Convert.ToInt32(textBox3.Text);
    i=a;
    while (i <= b)
    {
        textBox1.Text = textBox1.Text + Convert.ToInt32(i) +
System.Environment.NewLine;
        i++;
    }
```

Form1

Enter starting number 1 Enter second number 100

While Loop

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

Program to demonstrate switch Statement

```
int day;
String dayname="Enter a valid Day Name between 1 and 7";
day = Convert.ToInt32(textBox1.Text);
switch (day)
{
    case 1: dayname = "Monday";
            break;
    case 2: dayname = "Tuesday";
            break;
    case 3: dayname = "Wednesday";
            break;
    case 4: dayname = "Thursday";
            break;
    case 5: dayname = "Friday";
            break;
    case 6: dayname = "Saturday";
            break;
    case 7: dayname = "Sunday";
            break;
}
textBox2.Text = dayname;
```

A screenshot of a Windows application window titled "Form1". The window has a light gray background. At the top left, there is a label "Enter a Number". To its right is a text box containing the number "7". Below these, centered, is a button labeled "Check". At the bottom, there is a large text area with a black border, containing the word "Sunday" in its top-left corner.

Program to find Result of Student based on Marks

Code :

```
int marks;
String result = "";
marks = Convert.ToInt32(textBox1.Text);
if((marks>=80) && (marks<=100))
{
    result="Grade A";
}
else if((marks>=70) && (marks<80))
{
    result="Grade B";
}
else if((marks>=60) && (marks<70))
{
    result="Grade C";
}
else
{
    result="Grade D";
}
textBox2.Text="Student Obtained Marks " + marks + " and Result of
the student is " + result;
```

Program to create a function to calculate Simple Interest

```
public static double calcsi(double p, double r, double t)
{
    double si;
    si = (p * r * t) / 100;
    return si;
}
private void button1_Click(object sender, EventArgs e)
{
    double si;
    double p, r, t;
    p = Convert.ToDouble(textBox1.Text);
    r = Convert.ToDouble(textBox2.Text);
    t = Convert.ToDouble(textBox3.Text);
    si = calcsi(p, r, t);
    label4.Text = "Simple Interest is " + Convert.ToString(si);
}
```