```typescript
// 1. Create one typescript application which contains one class named as
Arithmetic.
// Arithmetic class contains three characteristics (Class data members) as
Number1, Number2.
// Create one parameterised constructor which accept two values and assign it
to Number1 and Number2.
// In Arithmatic class we have to write four methods (Behaviours) as Addition,
Substraction and Division.
// Addition method will add Number, Number2 and return result.
// Substraction method will sutract Number1, Number2 & return result.
// Multiplcation method will multiply Number1, Number2 & return result.
// Division method will divide Number1, Number2 & return result.
// After designing the class create two objects of that class by providing
some
// hardcoded value. Call all the method by using both the objects.

class Arithmatic
{
    public Number1 : number;
    public Number2 : number;

    constructor(A : number, B : number)
    {
        this.Number1 = A;
        this.Number2 = B;
    }

    Addition() : number
    {
        var Ans : number;
        Ans = this.Number1 + this.Number2;
        return Ans;
    }

    Substraction() : number
    {
        var Ans : number;
        Ans = this.Number1 - this.Number2;
        return Ans;
    }

    Multiplication() : number
    {
        var Ans : number;
        Ans = this.Number1 * this.Number2;
        return Ans;
    }
```

```typescript
    Division() : number
    {
        var Ans : number;
        Ans = this.Number1 / this.Number2;
        return Ans;
    }
}

var Obj1 = new Arithmatic(11, 10);
var Obj2 = new Arithmatic(25, 21);

var Result : number = 0;

Result = Obj1.Addition();
console.log("Addition is : "+Result);


Result = Obj1.Substraction();
console.log("Substraction is : "+Result);


Result = Obj2.Multiplication();
console.log("Multiplication is : "+Result);


Result = Obj2.Division();
console.log("Division is : "+Result);
```

```
C:\WINDOWS\system32\cmd.    ×    +   ∨                                           —   □   ×

D:\MEAN Stack\01-Typescript\01-Assignments\03-Assignments-03>node 01-Arithmatic.js
Addition is : 21
Substraction is : 1
Multiplication is : 525
Division is : 1.1904761904761905

D:\MEAN Stack\01-Typescript\01-Assignments\03-Assignments-03>
```

```typescript
// Create on typescript application which contains one named as Circle.
// Create one parametrised constructor which accept one value and assign it
// to radius. Value of PI member is set to 3.14.
// In circle class we have to one method (Behaviours) as Area which will
return are of Circle.
// After designing the class create two objects of that class by providing
some hardcoded value.
// Call the method Area by using both the objects.
class Circle
{
    public Radius : number;
```

```typescript
    public PI : number;

    constructor(rad : number, pi_val : number = 3.14)
    {
        this.Radius = rad;
        this.PI = pi_val;
    }

    Area() : number
    {
        var Ans : number;
        Ans = this.PI * this.Radius * this.Radius;
        return Ans;
    }
}

var Result : number;
var Obj1 = new Circle(5);

Result = Obj1.Area();
console.log("Area of circle is : " +Result);
```
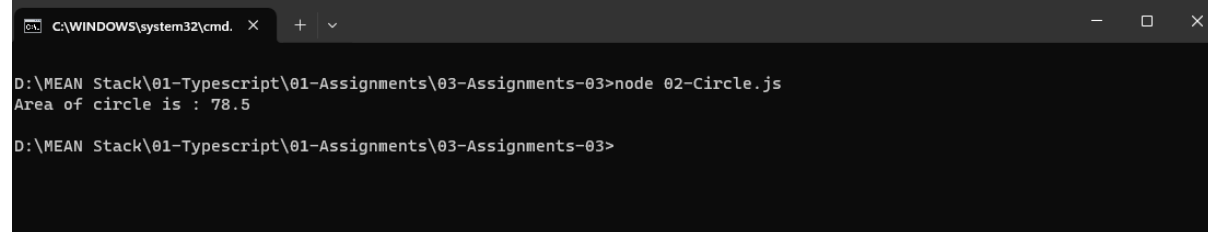
```typescript
// Create one typescript application which contains one class named as CircleX
which inherits above circle class.
// In CircleX class we have to write one method(Behaviours) as Circumference
which will
// return circumference of circle.
// After designing the class create two object of that class by providing some
hardcoded
// value. Call circumference and Area method by using both the objects.

class Circle
{
    public Radius : number;
    public PI : number;

    constructor(rad : number, pi_val : number = 3.14)
```

```
    {
        this.Radius = rad;
        this.PI = pi_val;
    }

    Area() : number
    {
        var Ans : number;
        Ans = this.PI * this.Radius * this.Radius;
        return Ans;
    }
}

class CircleX extends Circle
{
    Circumference() : number
    {
        var circumOfCircle : number;
        circumOfCircle = 2 * this.PI * this.Radius;
        return circumOfCircle;
    }
}

var Result : number;
var Obj1 = new Circle(5);

Result = Obj1.Area();
console.log("Area of circle is : " +Result);

var Obj2 = new CircleX(10);
Result = Obj2.Circumference();
console.log("Circumference of circle is : "+Result);
```
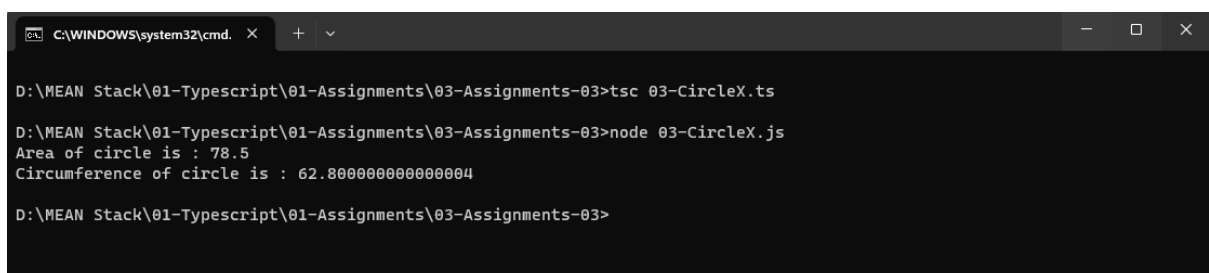
```
C:\WINDOWS\system32\cmd.                                                      —    □    ×

D:\MEAN Stack\01-Typescript\01-Assignments\03-Assignments-03>tsc 03-CircleX.ts

D:\MEAN Stack\01-Typescript\01-Assignments\03-Assignments-03>node 03-CircleX.js
Area of circle is : 78.5
Circumference of circle is : 62.800000000000004

D:\MEAN Stack\01-Typescript\01-Assignments\03-Assignments-03>
```