Angular assignment 3

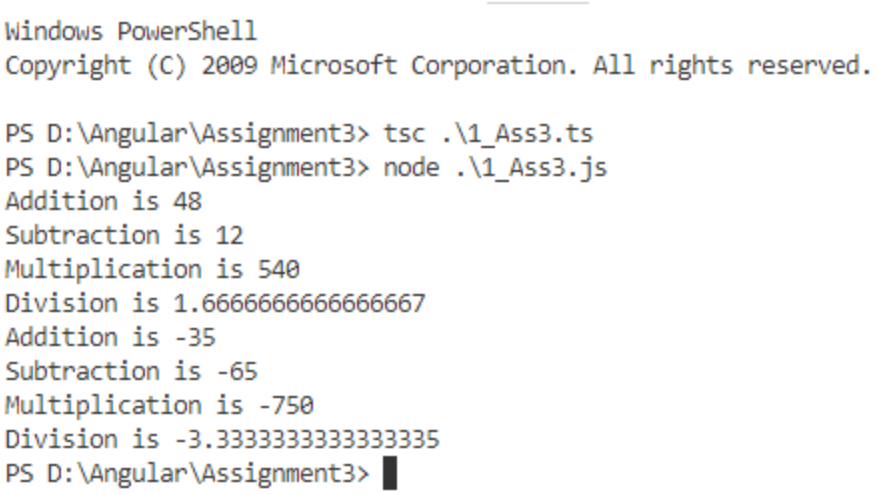
1. Create one typescript application which contains one class named as Arithmetic.
Arithmetic class contains three characteristics (Class data members) as Number1, Number2.
Create one parametrised constructor which accept two values and assign it to Number1 and
Number2.
In Arithmetic class we have to write four methods (Behaviours) as Addition, Subtraction ,
Multiplication and Division.
Addition method will add Number1 , Number2 & return result.
Subtraction method will subtract Number1 , Number2 & return result.
Multiplication 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 methods by using both the objects.

TS 1_Ass3.ts ▸ Arithmetic

```ts
class Arithmetic
{
    Number1:number;
    Number2:number;

    constructor(value1 :number,value2:number)
    {
        this.Number1 = value1;
        this.Number2 = value2;
    }
    Addition():number
    {
        return this.Number1+this.Number2;
    }
    Subtraction():number
    {
        return this.Number1-this.Number2;
    }
    Multiplication():number
    {
        return this.Number1*this.Number2;
    }
    Division():number
    {
        return this.Number1/this.Number2;
    }
}
var obj1=new Arithmetic(30,18);
console.log("Addition is "+obj1.Addition());
console.log("Subtraction is "+obj1.Subtraction());
console.log("Multiplication is "+obj1.Multiplication());
console.log("Division is "+obj1.Division());

var obj2=new Arithmetic(-50,15);
console.log("Addition is "+obj2.Addition());
console.log("Subtraction is "+obj2.Subtraction());
console.log("Multiplication is "+obj2.Multiplication());
console.log("Division is "+obj2.Division());
```



2. Create one typescript application which contains one class named as Circle.
Circle class contains two characteristics (Class data members) as Radius, PI.
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 area 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.

TS 2_Ass3.ts ▸ Circle

```typescript
class Circle
{
    Radius:number;
    PI:number;

    constructor(value1:number,PI :number=3.14)
    {
        this.Radius =value1;
        this.PI=PI;
    }
    Area():number
    {
        var area:number;
        area = (this.PI * this.Radius*this.Radius);
        return area;
    }
}
var obj3=new Circle(5);
console.log("Area of circle of radius 5 is "+obj3.Area());
var obj4=new Circle(10.55);
console.log("Area of circle of radius 10.55 is "+obj4.Area());
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
Windows PowerShell
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PS D:\Angular\Assignment3> tsc .\2_Ass3.ts
PS D:\Angular\Assignment3> node .\2_Ass3.js
Area of circle of radius 5 is 78.5
Area of circle of radius 10.55 is 349.48985000000005
PS D:\Angular\Assignment3>
```

3. Create one typescript application which contains one class named as CircleX which sill
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 objects of that class by providing some hardcoded value.
Call Circumference and Area methods by using both the objects

TS 3_Ass3.ts ▸ Circle

```typescript
class Circle
{
    Radius:number;
    PI:number;
    constructor(value1:number,PI :number=3.14)
    {
        this.Radius =value1;
        this.PI=PI;
    }
    Area():number
    {
        return (this.PI * this.Radius*this.Radius);
    }
}

class CircleX extends Circle
{
    constructor(val1:number)
    {
        super(val1);
    }
    Circumference():number
    {
        return (2 * this.PI* this.Radius);
    }
}
var obj=new CircleX(5);
console.log("Area of circle with radius 5 is "+obj.Area());
console.log("Circumference of circle with radius 5 is "+obj.Circumference());
var obj3=new CircleX(10);
console.log("Area of circle with radius 10 is "+obj3.Area());
console.log("Circumference of circle with radius 10 is "+obj3.Circumference());
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
Windows PowerShell
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PS D:\Angular\Assignment3> tsc .\3_Ass3.ts
PS D:\Angular\Assignment3> node .\3_Ass3.js
Area of circle with radius 5 is 78.5
Circumference of circle with radius 5 is 31.400000000000002
Area of circle with radius 10 is 314
Circumference of circle with radius 10 is 62.800000000000004
PS D:\Angular\Assignment3>
```