

Problem 1

```
class Arithmetic{
    Number1 :number;
    Number2 :number;
    constructor(N1:number,N2: number){
        this.Number1=N1;
        this.Number2=N2;
    }
    Addition(){
        console.log("Addition= "+(this.Number1+this.Number2));
    }
    Subtraction(){
        console.log("Subtraction= "+(this.Number1-this.Number2));
    }
    Multiplication(){
        console.log("Multiplication= "+(this.Number1*this.Number2));
    }
    Division(){
        console.log("Division= "+(this.Number1/this.Number2));
    }
}
var obj1=new Arithmetic(10,20);
obj1.Addition();
obj1.Subtraction();
obj1.Multiplication();
obj1.Division();
var obj2=new Arithmetic(50,20);
obj2.Addition();
obj2.Subtraction();
obj2.Multiplication();
obj2.Division();
```

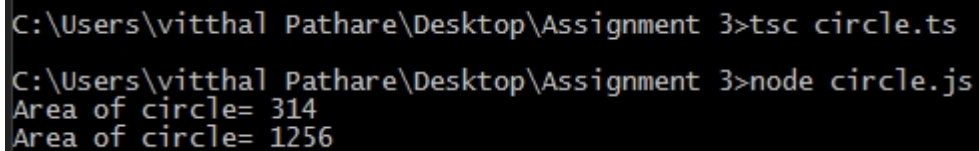
OUTPUT

```
C:\Users\vitthal Pathare\Desktop\Assignment 3>tsc arithmetic.ts
C:\Users\vitthal Pathare\Desktop\Assignment 3>node arithmetic.js
Addition= 30
Subtraction= -10
Multiplication= 200
Division= 0.5
Addition= 70
Subtraction= 30
Multiplication= 1000
Division= 2.5
```

Problem 2

```
class Circle{
    radius :number;
    PI:number=3.14;
    constructor(r1:number){
        this.radius=r1;
    }
    Area(){
        console.log("Area of circle=
"+(this.PI*(this.radius*this.radius)));
    }
}
var obj1=new Circle(10);
var obj2=new Circle(20);
obj1.Area();
obj2.Area();
```

OUTPUT



```
C:\Users\vitthal Pathare\Desktop\Assignment 3>tsc circle.ts
C:\Users\vitthal Pathare\Desktop\Assignment 3>node circle.js
Area of circle= 314
Area of circle= 1256
```

Problem 3

```
class Circle{
    radius :number;
    PI:number=3.14;
    constructor(r1:number){
        this.radius=r1;
    }
    Area(){
        console.log("Area of circle=
"+(this.PI*(this.radius*this.radius)));
    }
}
class CircleX extends Circle{
    Circumference(){
        console.log("Circumference
="+ (2*this.PI*this.radius).toFixed(2));
    }
}
var obj1=new CircleX(10);
var obj2=new CircleX(20);
obj1.Area();
obj1.Circumference();
obj2.Area();
obj2.Circumference();
```

OUTPUT

```
C:\Users\vitthal Pathare\Desktop\Assignment 3>tsc circumference.ts
C:\Users\vitthal Pathare\Desktop\Assignment 3>node circumference.js
Area of circle= 314
Circumference =62.80
Area of circle= 1256
Circumference =125.60
```