Week 1

1. Write a program to display volume of sphere.

```
public class ab{
    public static void main (String [] args)
    {
       int radius=48;
      double pie=3.14285714286;
     double volume=(4.0/3.0)*pie*(radius*radius*radius);
    System.out.println("Volume of the sphere="+volume);
}
        }
```

Output:

Pseudocode:

Initialize radius to 48.

Double pie to 13.14285714286

Double volume using formula

4.0/3.0 pie r cube

Print “Volume of the sphere” adding volume

2, Write a program to display area of 4 walls.

```
public class ab{
    public static void main (String [] args)
    {
          int length = 25;
          int breath = 15;
          int Height = 12;
          double Area =2*Height*(length+breath);
          System.out.println("The area of 4 wall= "+Area);
}
        }
```

Output:

```
The area of 4 wall= 960.0
```

Pseudocode:

Initialize length to 25

Initialize breath to 15

Initialize height to 12

Double Area Formula

2h(l+b)

Print “The area of 4 wall “ adding Area

3. Write a program to display total surface area and volume of cuboid.

```
public class ab{
    public static void main (String [] args)
    {
        int area =15;
        double cube= (6*area*area);
        System.out.println(" total surface area of cube"+cube);
        }
        }
```

Output:

```
total surface area of cube1350.0
```

Pseudocode:
Initialize area to 15
Double cube Formula
6a square
Print “Total surface area of cube “adding cube

4. Write a program to display total surface area of cube.

```
public class ab{
    public static void main (String [] args)
    {
       int length = 2;
       int height =4;
       int width =6;
       int tsaCubiod =2*(length*height*width+width*height);
       int volCuboid =length*width*height ;
       System.out.println("The volume of Cubiod is = "+volCuboid);



        System.out.println(" the tsa of Cubiod "+tsaCubiod);
        }
        }
```

Output:

```
The volume of Cubiod is = 48
 the tsa of Cubiod 144
```

Pseudocode:

# Initialize length to 2
# Initialize height to 4
# Initialize width to 6
# Initialize TSACubiod formula
2(l*h*w*+w*h)
# Initialize volumeCubiod formula
l*w*h
print “The volume of cuboid” adding volCubiod
print “The tsa of cuboid “adding TSAcubiod

5. Write a program to display area of rectangle.

```
public class ab{
    public static void main (String [] args)
    {
        int length = 2;
        int breath =4;
        int Area =length * breath;
         System.out.println(" the area of rectangle = "+Area);
         }
         }
```

Output:

```
n.out.prir the area of rectangle = 8
```

Pseudocode:

Initialize length to 2
Initialize breath to 4
Initialize Area
l*b
print “the area of rectangle “adding Area

6. Write a program to display circumference of circle.

```
public class ab{
    public static void main (String [] args)
    {
       int radius = 2;
       double pi = 3.14159265;
       double Circumference =2*pi*radius;
        System.out.println(" the Circumference of circle is = "+Circumference);
        }
        }
```

Output:

```
the Circumference of circle is = 12.5663706
```

Pseudocode:

Initialize to 2
Double pi to 3.14159265
Double circumference formula
2*pi*r
print “the circumference of circle is “adding circumference

7. Write a program to display area of triangle when three sides are given.

```
public class ab{
    public static void main (String [] args)
    {
       int A= 12;
       int B= 16;
       int C= 18;
       int sp = (A+B+C)/2;
        System.out.println(" the semi perimeter of trianfgle  is = "+sp);
        double Area =Math.sqrt(sp*(sp-A)*(sp-B)*(sp-C));
         System.out.println(" the area of triangle is = "+Area);

        }
        }
```

Output:

```
the area of triangle is = 94.10100955887773
```

Pseudocode:

# Initialize A t o 12
# Initialize B to 16
# Initialize C to 18
# Initialize sp adding A+B+C divide by 2
# print “the semi perimeter of triangle is”
# Double Area formula
Math.sqrt(sp*(sp-A) *(sp-B) *(sp-C))
# Print “the area of triangle is “adding Area

8. Write a program to display area and circumference of circle.

```
public class ab{
    public static void main (String [] args)
    {
        double r,pi;
        r =8.0;
        pi = 3.14159265;
        double circumference = 2*pi*r;
        double area =pi*r*r;
        System.out.println(" the circumference of circle is = "+circumference);
         System.out.println(" the area of circle is = "+area);

        }
        }
```

Output:

```
the area of circle is = 201.0619296
```

Pseudocode:

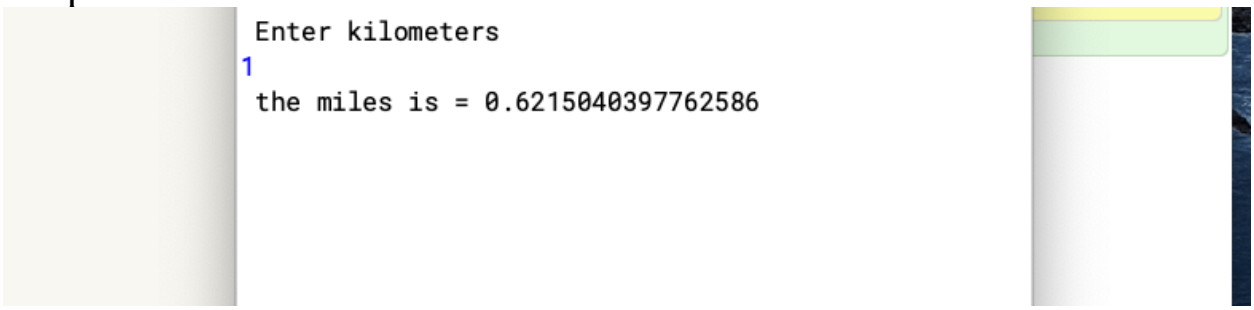
Double to r, pi
Radius to 8.0
Pi to 3.14159265
Double circumference formula
2*pi*r
area = pi*r*r
print “the circumference of circle is “adding circumference
print “the area of circle “adding area

9. Write a program to ask distance in kilometer and convert into miles.

```java
import java.util.Scanner;
public class ab{
    public static void main (String [] args)
    {
        double km;
        System.out.println(" Enter kilometers");
        Scanner in = new Scanner(System.in);
        km =in.nextDouble();
        double miles =km/1.609;
         System.out.println(" the miles is = "+miles);

        }
        }
```

Output:



Pseudocode:

Double to km
print “enter kilometer”
Letting scanner to in
Km to in. nextdouble
miles = km/1.609
print “the miles is” adding miles

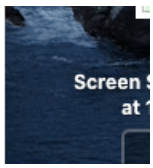
10. Write a program to ask distance in kilometer and convert into miles.

```
import java.util.Scanner;
public class ab{
    public static void main (String [] args)
    {
        double M;
        System.out.println("Please enter miles");
        Scanner in = new Scanner(System.in);
        M = in.nextDouble();
        double km =M*1.609;
         System.out.println(" the miles in kilometers is = "+km);

        }
        }
```

Output:

```
Please enter miles
5
 the miles in kilometers is = 8.045
```



Pseudocode:

Double be m
#print “please enter miles”
Letting scanner in
m be in. nextdouble
km =m*1.609
#print “the miles in kilometer is “adding km

11. Write a program to calculate potential energy of body.

```
public class ab
{
    public static void main (String [] args)
    {
        double g=9.8;
        int m,h;
        m =2;
        h =6;
        double pe =m*g*h;
        System.out.println("the potential energy of body is="+pe);

        }
        }
```

Output:

```
1
 the miles is = 0.6215040397762586
Please enter miles
5
 the miles in kilometers is = 8.045
Please enter miles
wda
the potential energy of body is=117.60000000000001
```

Pseudocode:

Double g to 9.8
Letting Initialize m, h
Letting m to 2
Letting h to 6
Pe Formula =m*g*h
Print “the potential energy of body is “adding pe

12. Write a program to display perimeter of rectangle.

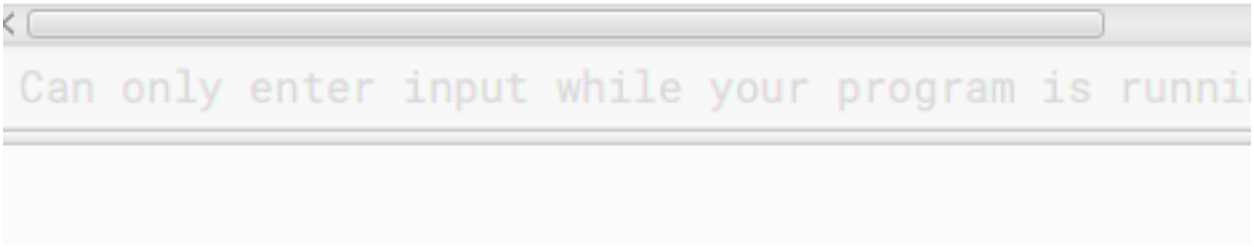
```
public class ab
{
    public static void main (String [] args)
    {

     int l,w;
     l =2;
     w =6;
    int perimeter=2*(l+w);
     System.out.println("the perimeter of rectangle is="+perimeter);

     }
     }
```

Output:

```
the perimeter of rectangle is=16
```



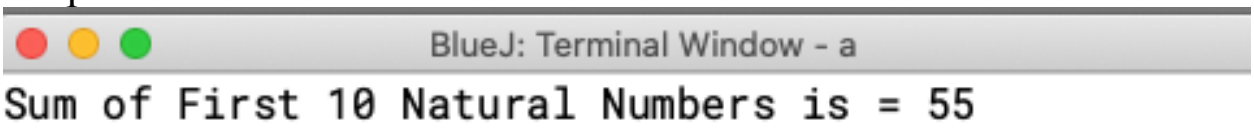
Pseudocode:

letting Initialize l,w
Length l to 2
Weight w to 6
Initialize perimeter: 2*(l+w)
print “the perimeter of rectangle” adding perimeter

13. Write a program to ask n number and print the sum of first n natural numbers.

```
public class c
{
public static void main(String[] args)
{
int i, num = 10, sum = 0;
for(i = 1; i <= num; ++i)
{
sum = sum + i;
}
System.out.println("Sum of First 10 Natural Numbers is = " + sum);
}
}
```

Output:

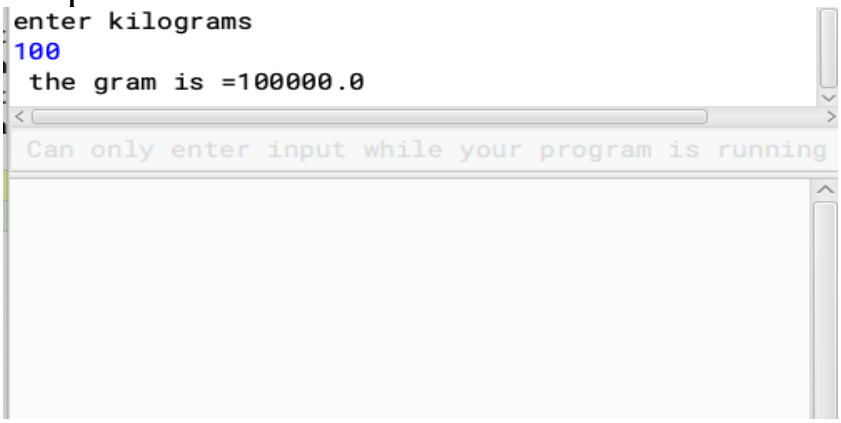


Pseudocode:
Initialize I letting num 10 sum to 0
Finding square of I and add to sum
Adding sum and i
#print “sum of first 10 natural number is” adding sum

14. Write a program to ask in kilogram and convert into grams.

```java
import java.util.Scanner;
public class v
{
    public static void main (String [] args)
    {
        double kg;
         System.out.println("enter kilograms");
         Scanner in = new Scanner (System.in);
         kg=in.nextDouble();
         double grams = kg*1000;
        System.out.println(" the gram is =" +grams);
    }
}
```

Output:



Pseudocode:

Double to kg
print “enter kilograms”
Letting scanner be in
Kg be in. nextdouble
grams =kg*1000
print “the gram is “adding grams

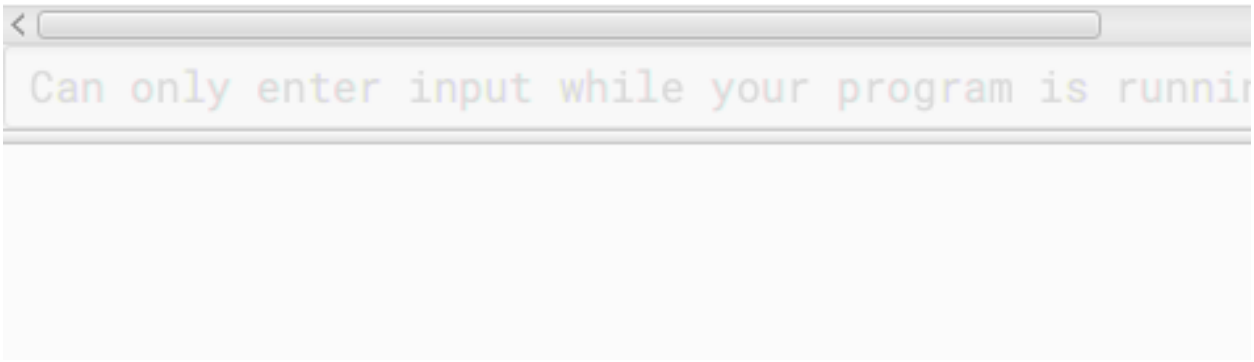
15. Write a program to display total surface area and volume of sphere.

```
//import java.util.Scanner;
public class v
{
    public static void main (String [] args)
    {
        double pi,r;
        pi =3.1543;
        r =6;
        double tsasphere =4*pi*(r*r);
        double volsphere =4/3*pi*(r*r);
        System.out.println(" the TSA of sphere is =" +tsasphere);
         System.out.println(" the volume of sphere is = " +volsphere);

    }
}
```

Output:

```
 the TSA of sphere is =454.2192
 the volume of sphere is = 113.5548
```



Pseudocode:

Double of pi, r
Pi to 3.1543
Radius to 6
Tsa sphere formula = 4*pi*(r*r)
Volume of sphere = 4/3*pi*(r*r)
print “the tsa of sphere is “adding tsasphere
print “the volume of sphere is “adding volsphere

16. Write a program to display total surface area of cylinder.

```
public class v{
public static void main( String [] args){
double r, h, surfacearea;
 r = 2;
 h  = 5;
 surfacearea = (22*r*(r+h))/7;
System.out.println("Surface Area of Cylinder is: "+surfacearea);
}
}
```

Output:

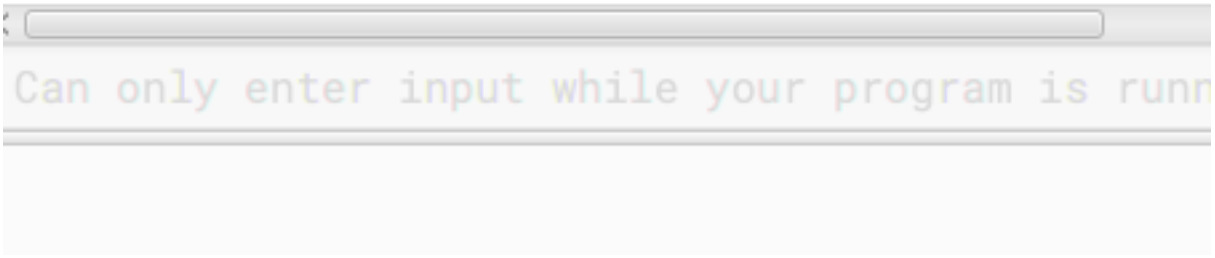
Pseudocode:
Double of r and h
radius r to 2
Height h to 5
Surface area =(22*r*(r+h)/7
print “Surface Area of cyclinder is “ adding surface area

17. Write a program to display total surface area of cuboid / box.

```
public class v
{
    public static void main (String [] args)
    {
        double w,l,h;
        w =3;
        l =6;
        h = 6;
        double tsaCuboid =2*(l*h+l*w+h*w);
        System.out.println(" the TSA of cuboid is =" +tsaCuboid);
    }
}
```

Output:

```
the TSA of cuboid is =144.0
```



Pseudocode:
Double of w, l and h
Weight w to 3
Length l to 6
Height h to 6
Tsa cuboid = 2*(L*h+l*w+h*w)
print “the area of cuboid “adding tsacuboid

18. Write a program to display area of square.

```
public class v
{
    public static void main (String [] args)
    {
    int s=13;
    int area_square=s*s;
    System.out.println("Area of the square="+area_square);

}
}
```

Output:

```
Area of the square=169
```

Can only enter input while your program is

Pseudocode:

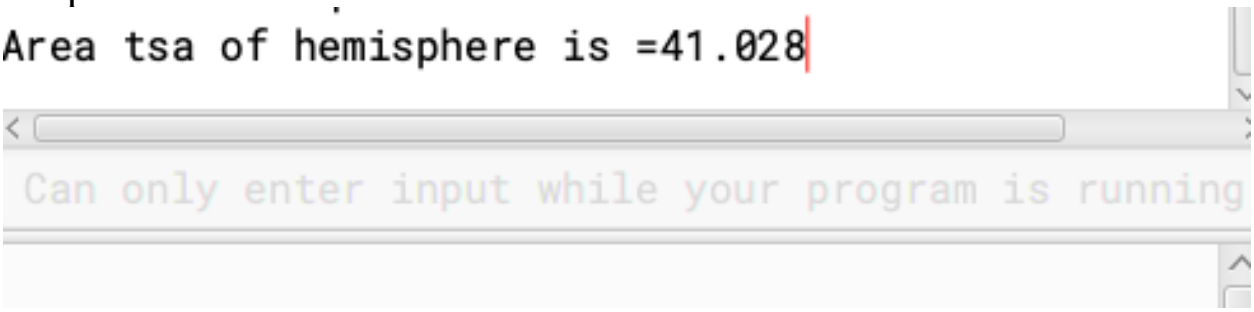
Initialize s to 13
Area _square =s*s
print “area of the square” adding square

19. Write a program to display total surface area of hemisphere.

```
public class v
{
    public static void main (String [] args)
    {
    double pi,r;
    pi=3.419;
    r=2;
    double tsahemi = 3*pi*(r*r);
    System.out.println("Area tsa of hemisphere is ="+tsahemi);

}
}
```

Output:



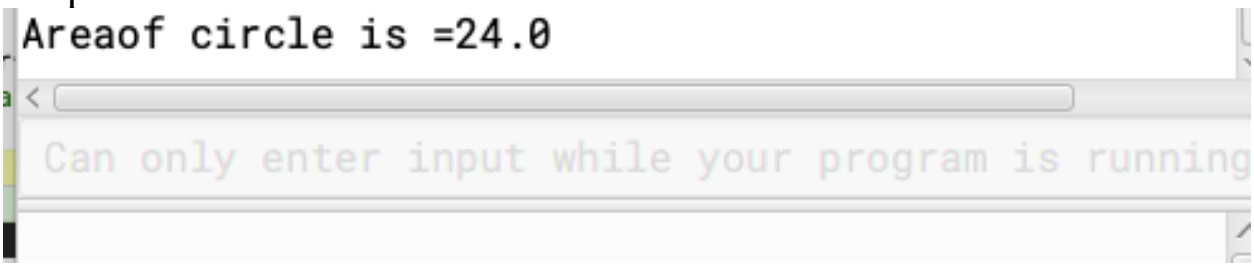
Pseudocode:
Double of pi and r
Pi to 3.419
Radius to 2
Tsa of hemisphere = 3*pi*(r*r)
Print (“area tsa of hemisphere” adding tsahemi

20. Write a program to display area of circle

```
public class v
{
    public static void main (String [] args)
    {
    double pi,r;
    pi=6;
    r=2;
    double area =pi*(r*r);
    System.out.println("Areaof circle is ="+area);

}
}
```

Output:



Pseudocode:

Double of pi and r
Pi to 6
Radius to 2
Area formula =pi*(r*r)
print “area of circle is” adding area