

1.Complete the code segment to help Ragav , find the highest mark and average mark secured by him in "s" number of subjects.

```
import java.util.Scanner;
public class Exercise1_5{
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        double mark_avg;
        int result;
        int i;
        int s;
        //define size of array
        s = input.nextInt();
        //The array is defined "arr" and inserted marks into it.
        int[] arr = new int[s];
        for(i=0;i<arr.length;i++)
        {
            arr[i]=input.nextInt();
        }

        //Initialize maximum element as first element of the array.
        //Traverse array elements to get the current max.
        //Store the highest mark in the variable result.
        //Store average mark in avgMarks.
        int temp=0,j;

        for(i=0; i < s; i++)
        {
            for(j=1; j < (s-i); j++)
            {
                if(arr[j-1] > arr[j])
                {
                    //swap elements
                    temp = arr[j-1];
                    arr[j-1] = arr[j];
                    arr[j] = temp;
                }
            }
        }
        result=arr[s-1];
        temp=0;
        for(i=0;i<arr.length;i++)
        {
            temp +=arr[i];
        }
        mark_avg=temp/s;

        System.out.println(result);
    }
}
```

```
        System.out.print(mark_avg);
    }
}
```

2. Consider First  $n$  even numbers starting from zero(0). Complete the code segment to calculate sum of all the numbers divisible by 3 from 0 to  $n$ . Print the sum.

```
import java.util.Scanner;
public class Exercise1_3 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n=sc.nextInt();
        int sum=0;

        //Use for or while loop do the operation.

        for(int i=0;i<=n;i++)
        {
            int t = 2*(i-1);
            if(t%3 == 0)
            {
                sum += t;
            }
        }
        System.out.print(sum);
    }
}
```

3. Complete the code segment to find the perimeter and area of a circle given a value of radius.

```
import java.util.Scanner;
public class Exercise1_1 {
    public static void main(String[] args) {
        Scanner s = new Scanner(System.in);
        double radius= s.nextDouble();
        double perimeter;
        double area;
        //Calculate the perimeter
        perimeter = 2 * Math.PI * radius;
        //Calculate the area
        area = perimeter * radius;

        System.out.println(perimeter);
        System.out.print(area/2);
    }
}
```

4. Complete the code segment to check whether the number is an Armstrong number or not.

```
import java.util.Scanner;
public class Exercise1_4 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n=sc.nextInt();
        int result=0;
        //Use while loop check the number is Armstrong or not.
        //store the output(1 or 0) in result variable.

        int remainder,temp,count=0,i;
        temp=n;
        while(temp!=0)
        {
            temp/=10;
            count++;
        }
        i=count;
        temp=n;
        while(count>0)
        {
            remainder=temp%10;
            result += Math.pow(remainder, i);
            temp/=10;
            count--;
        }
        if(n==result)
            result=1;
        else
            result=0;

        System.out.print(result);
    }
}
```

5. Complete the code segment to find the largest among three numbers x,y, and z. You should use if-then-else construct in Java.

```
import java.util.Scanner;
public class Exercise1_2 {
    public static void main(String[] args) {
        Scanner s = new Scanner(System.in);
        int x = s.nextInt();
        int y = s.nextInt();
        int z = s.nextInt();
        int result = 0;
        //Use if...else ladder to find the largest among 3 numbers and store the
        largest number in a variable called result.
```

```
if( x > y && x > z)
{
    result = x;
}
else if( y > x && y > z)
{
    result = y;
}
else if( z > y && z > x)
{
    result = z;
}
else
{
    result = x;
}
System.out.print(result);
}
```