Q Wap to convert Fahrenheit to Celsius in Java using formula given below

°C = (°F – 32) / (9/5)

```
package Assignment5;
//Q Wap to convert Fahrenheit to Celsius  in Java using formula given below
//°C = (°F - 32) / (9/5)

import java.util.Scanner;
public class Q01 {

	public static void main(String[] args) {
		int fah;
		int cel;

		Scanner s=new Scanner(System.in);
		System.out.println("Enter the Fahrenheit Value ");
		fah=s.nextInt();

		cel=(fah-32)/(9/5);
		System.out.println("Celsius vale of give fahrenheit "+fah+"
value is "+cel);

		s.close();
	}

}
```

Outpute:-

```
Enter the Fahrenheit Value
50
Celsius vale of give fahrenheit 50 value is 18
```

Q 2 wap to check a given number is armstrong or not i.e. 153 = 1*1*1 + 5*5*5+3*3*3

```
package Assignment5;
//Q 2 wap to check a given number is armstrong or not  i.e. 153 = 1*1*1  +
5*5*5+3*3*3

import java.util.Scanner;
public class Q02 {

	public static void main(String[] args) {
		Scanner s=new Scanner(System.in);

		int a;
		System.out.println("Enter the number ");
		a=s.nextInt();

		int sum=0;
		int last=0;
		int temp=a;
		int length=0;

		while(temp>0)
```

```
		{
			temp=temp/10;
			length++;
		}


		temp=a;

		while(temp>0)
		{

			last=temp%10;
			sum+=(Math.pow(last, length));
			temp=temp/10;

		}


		if(sum==a)
		{
			System.out.println("It is a armstrong number ");
		}
		else
		{
			System.out.println("It is not armstrong number");
		}
	}

}
```

Outpute:-

```
Enter the number
153
It is a armstrong number
```

Q 3 Rajan went to a movie with his friends in a multiplex theatre and during break time he bought pizzas, puffs and cool drinks. Consider the following prices :

Rs.100/pizza
Rs.20/puffs
Rs.10/cooldrink
Generate a bill for What Rajan has bought.

Sample Input 1:

Enter the no of pizzas bought:10
Enter the no of puffs bought:12
Enter the no of cool drinks bought:5

Sample Output 1:

Bill Details
No of pizzas:10
No of puffs:12
No of cooldrinks:5
Total price=1290
---

package Assignment5;

/*Q 3 Rajan went to a movie with his friends in a multiplex theatre and during break time he bought pizzas, puffs and cool drinks. Consider the following prices :

Rs.100/pizza

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Sample Input 1:

Enter the no of pizzas bought:10

Enter the no of puffs bought:12

Enter the no of cool drinks bought:5

Sample Output 1:

Bill Details

No of pizzas:10

No of puffs:12

No of cooldrinks:5

Total price=1290

*/

```
import java.util.Scanner;
public class Q03 {

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

```
int pizzas;
int puffs;
int cooldrinks;
float total_price;

Scanner s=new Scanner(System.in);

System.out.println("Enter the Pizzaa Quantity purchace");
pizzas=s.nextInt();

System.out.println("Enter the Puff Quantity purchace");
puffs=s.nextInt();

System.out.println("Enter the Cooldrink Quantity purchace");
cooldrinks=s.nextInt();

int a;
int b;
int c;
int sum;

a=100*pizzas;
b=12*puffs;
c=10*cooldrinks;
sum=a+b+c;



total_price=((0.18f*sum)+sum);

System.out.println("Number of pizza "+pizzas +"\t 100 * "+pizzas +":"+a);
```

```
                System.out.println("Number of puff "+puffs +"\t 20 * " +puffs +":"+b);
                System.out.println("Number of cooldrinks "+cooldrinks +" 10 * "+cooldrinks
+":"+c);
                System.out.println("price is \t\t\t"+sum);
                System.out.println("\t\t\t\t18 % GST");
                System.out.println("Total price is \t\t\t"+total_price);




                s.close();
        }

}
```

Outpute:-

```
Enter the Pizzaa Quantity purchace
10
Enter the Puff Quantity purchace
12
Enter the Cooldrink Quantity purchace
15
Number of pizza 10       100 * 10:1000
Number of puff 12  20 * 12:144
Number of cooldrinks 15 10 * 15:150
price is                1294
                        18 % GST
Total price is               1526.92
```

Q 3 Given an integer U denoting the amount of KWh units of electricity consumed, the task is to calculate the electricity bill with the help of the below charges:

1 to 100 units – Rs. 10/unit
100 to 200 units – Rs. 15/unit
200 to 300 units – Rs. 20/unit
above 300 units – Rs. 25/unit
Examples:

Input: U = 250
Output: 3500
Explanation:
Charge for the first 100 units – 10*100 = 1000
Charge for the 100 to 200 units – 15*100 = 1500

Charge for the 200 to 250 units – 20*50 = 1000
Total Electricity Bill = 1000 + 1500 + 1000 = 3500
Input: U = 95
Output: 950
Explanation:
Charge for the first 100 units – 10*95 = 950
Total Electricity Bill = 950

Outpute:-

Q 4 Write a java program that define a sorted array of size N and an integer K, find the position at which K is

present in the array using binary search.

Example 1:

Input:
N = 5
arr[] = {1 2 3 4 5}
K = 4
Output: 3
Explanation: 4 appears at index 3.

```
package Assignment5;
//Q 4 Write a java program that  define a sorted array of size N and an
integer K, find the position at which K is
//present in the array using binary search.

import java.util.Scanner;
public class Q05 {

	public static void main(String[] args) {
		int size;
		Scanner s=new Scanner(System.in);
		System.out.println("Enter the array size");
		size=s.nextInt();

		int a[]=new int[size];
		int k;
		int mid;
		int first=0;
		int last=a.length-1;
		mid=(first+last)/2;


		for(int i=0;i<size;i++)
		{
			System.out.println("Enter the "+i+" element of array");
			a[i]=s.nextInt();

		}
```

```
            System.out.println("Enter tha value to be search");
            k=s.nextInt();

            while(first<=last)
            {
                  if(a[mid]<k)
                  {
                        first=mid+1;
                  }

                  else if(a[mid]==k)
                  {
                        System.out.println("Number is found ");
                        break;
                  }

                  else
                  {
                        last=mid-1;
                  }
                  mid=(first+last)/2;
            }
            if(first>last)
            {
                  System.out.println("Number is not found");
            }

            for(int i=0;i<size;i++)
            {
                  if(a[i]==k)
                  {
                        System.out.println(a[i]);
                        System.out.println("number is found in "+i+"
location");
                        break;
                  }
            }
            s.close();
      }

}
```

Outpute:-

```
Enter the array size
5
Enter the 0 element of array
10
Enter the 1 element of array
20
Enter the 2 element of array
30
Enter the 3 element of array
40
Enter the 4 element of array
50
Enter tha value to be search
10
Number is found
```

```
10
number is found in 0 location
```

Q 5 write a java program and define an array, print all the elements which are leaders. A Leader is an element that is greater than all of the elements on its right side in the array.

Examples:

Example 1:
Input:
arr = [4, 7, 1, 0]
Output:
7 1 0
Explanation:
Rightmost element is always a leader. 7 and 1 are greater than the elements in their right side.

Outpute:-

Q 6 Given two strings a and b consisting of lowercase characters. The task is to check whether two given strings are an anagram of each other or not. An anagram of a string is another string that contains the same characters, only the order of characters can be different. For example, abc and bca are an anagram of each other.

Example 1:

Input:a = cdacnoida, b = ciddacnoa
Output: YES
Explanation: Both the string have same characters with
same frequency. So, both are anagrams.

Outpute:-