

IIP
Test Unit 4 - Possible solution
Year 2014-2015

Name:

1. What is the output of the following code when `x` of datatype `int` is equal to 4? And when it is equal to 17?

```
if (x%2==0)
    System.out.print("x is even");
else if (x>10)
    System.out.print("x is ");
else
    System.out.print(x);
```

For `x==4`: `x is even` For `x==17`: `x is`

2. Write a Java program class in whose `main` method three integer values are read and show how many of them are equal among them. E.g., for (2,2,2) will say 3 are equal, for (2,7,7) will say 2 are equal, for (-2,5,9) it will say only 1 is equal.

```
import java.util.*;

public class EqualNumbers {
    public static void main(String [] args) {
        int a, b, c, n;
        Scanner kbd = new Scanner(System.in).useLocale(Locale.US);

        System.out.print("Write first number: ");
        a=kbd.nextInt();
        System.out.print("Write second number: ");
        b=kbd.nextInt();
        System.out.print("Write third number: ");
        c=kbd.nextInt();

        if (a==b && b==c) n=3;
        else if (a==b || b==c || a==c) n=2;
        else n=1;

        System.out.println("There are "+n+" equal numbers");
    }
}
```

3. Write a Java program class that reads an integer number n and, after that, as many integer numbers as needed until a divisor of n is entered, showing then the result of the sum of all the numbers entered (except the last one).

```
import java.util.*;

public class Divisor {
    public static void main(String [] args) {
        int n, d, s;
        Scanner kbd = new Scanner(System.in).useLocale(Locale.US);

        System.out.print("Write number: ");
        n=kbd.nextInt();

        s=0;

        System.out.print("Write number: ");
        d=kbd.nextInt();

        while (n%d!=0) {
            s+=d;
            System.out.print("Write number: ");
            d=kbd.nextInt();
        }

        System.out.println("Total sum: "+s);
    }
}
```

4. Write a Java program class that reads sentences until the empty sentence is inputted and then prints on the screen the length of the longest sentence that was inputted.

```
import java.util.*;

public class LongestSentence {
    public static void main(String [] args) {
        String s;
        int l=0;
        Scanner kbd = new Scanner(System.in).useLocale(Locale.US);

        System.out.print("Write sentence: ");
        s=kbd.nextLine();

        while (!s.equals("")) {
            if (s.length()>l) l=s.length();
            System.out.print("Write sentence: ");
            s=kbd.nextLine();
        }

        System.out.println("The longest sentence had "+l+" characters");
    }
}
```