

TP1-SOLUTION

Ex01 : using System.out.println Display Your full name

```
System.out.println("YOUR NAME, OUR SURNAME");
```

Ex02 : print the result of the following expression :

The addition of the two numbers 12 and 3.

The subtraction of the number 5 from 20.

The division of 15 by 3.

The modulo of 15 by 3.

```
System.out.println(12+3);
```

```
System.out.println(20-5);
```

```
System.out.println(15/3);
```

```
System.out.println(15%3);
```

Ex03 : Declare different variables to store your full name, your age, your phone number, a credit card number 56105910810825, an expiration date (e.g., "26/05"), and a variable indicating whether you are a student or not. after that display those variables.

```
String name = "Mokhtari Abdelheq";
```

```
byte age = 23;
```

```
String phoneNumber = "+2137754899512";
```

```
long cardNumber = 56105910810825L;
```

```
String expirationDate = "26/05";
```

```
boolean student = false;
```

Ex04: Display the sum of 5 + 10, using two variables: x and y.

```
byte x = 5, y=10;
```

```
System.out.println(x+y);
```

Ex05: reads the length and width of a rectangle from the user and calculates and displays the area of the rectangle.

```
Scanner scanner = new Scanner(System.in);  
float width, length;
```

```
System.out.println("Enter the width: ");  
width = scanner.nextFloat();
```

```
System.out.println("Enter the length: ");  
length = scanner.nextFloat();
```

```
System.out.println("Width: " + width);  
System.out.println("Length: " + length);
```

Ex06: Declare an array of integers named numbers with a size of 5.
Populate the array with some integer values.
Display each element of the numbers array individually.
Calculate and display the sum of all elements in the numbers array.

```
int[] numbers = new int[5];  
numbers[0] = 1;  
numbers[1] = 1;  
numbers[2] = 2;  
numbers[3] = 3;  
numbers[4] = 5;
```

```
// Display and calculate without loops

System.out.println("the element 1: " + numbers[0]);
System.out.println("the element 2: " + numbers[1]);
System.out.println("the element 3: " + numbers[2]);
System.out.println("the element 4: " + numbers[3]);
System.out.println("the element 5: " + numbers[4]);
System.out.println("sum of all elements in the numbers array: " +
    numbers[0]+numbers[1]+numbers[2]+numbers[3]+numbers[4]);

// Display and calculate with loops

short sum=0;
for(int i=0;i<5;i++){
    System.out.println("the element " + i + ": " + numbers[i]);
    sum+=numbers[i];
}

System.out.println("sum of all elements in the numbers array: " + sum);
```

EX07 : Calculate a factorial of an input using (Scanner)

```
int n;
do{
    System.out.println("enter a positive number");
    n = scanner.nextInt();
}while(n<=0);

System.out.println("Calculate"+n+"factorial:");

int counter =1;
int result=1;
while(counter <= n)
{ result= result * counter;
  counter = counter +1; }

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