# Homework-03

- 1. Write a program that sorts three integers. The integers are entered from the input dialogs and sorted in variables num1, num2, and num3, respectively. The program sorts the numbers so that num1<=num2<=num3.
- **2.** Write a program that generates two integers under 100 and prompts the user to enter the addition of these two integers. The program then reports true if the answer is correct, false otherwise.

Here is Random sample :

What is 
$$40 + 11$$
?

51

 $40 + 11 = 51$  is true

OR

What is  $40 + 11$ ?

30

 $40 + 11 = 30$  is false

**3.** This program first prompts the user to enter a year as an int value and checks if it is a leap year. A year is a leap year if it is divisible by 4 but not by 100, or it is divisible by 400.

$$(year \% 4 == 0 \&\& year \% 100 != 0) || (year \% 400 == 0)$$

# Input

There is no user input. the input integer will have taken by randomly.

Random Samples	Output Samples
Enter a Year: 2002	Message
	2002 is a Leap year?
	False

**4.** Write a Java program to find the number of days in a month.

# Concept

The number of the month should be used with the input and one year should be mentioned as input with it then whatever comes as a result will be considered as your output.

April2021							
Mon	Tue	wed	Th	Fr	Sat	Sun	
			1	2	3	4	
5	6	7	8	9	10	11	
12	13	14	15	16	17	18	
19	20	21	22	23	24	25	
26	27	28	29	30			

**5.** 111, 121, 131, 141, 151, 161, 171, 181 did you notice something? if you reverse the number it's same with the previous number wow. its call palindrome now it's time to write a program that the number is palindrome or not.

# Input

The input number contains an integer number. P contains the number variable.

#### Output

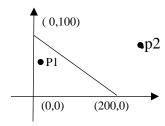
The number (xxx) is not a palindrome if it's not a palindrome number but it is then show the message "The number (xxx) is a palindrome."

Input Sample	Output Sample
122	The number(122) is not a palindrome
121	The number(121) is a palindrome
806	The number(806) is not a palindrome

**6.** Write a program that prompts the user to enter a point with x- and y- coordinates and determines whether the point is inside the Triangle.

# Concept

Suppose a right triangle is placed in a plane as shown below. The right-angle point is placed at (0,0), and the other two points are placed at (200,0), and (0,100).



## **Output:**

Enter a point's x- and y- coordinates: 100.5 25.5

The point is in the triangle.

## \*\* NOTICE\*\*

- Test your code by sample input.
- Your code won't be same of others if it is then both of your assignment will be declined.
- Use comment almost every line of code.
- Submit it on time.
- Your code will have in one project named Assignment\_03\_,make it zip and send it to <a href="mailto:akabillah4420@gmail.com">akabillah4420@gmail.com</a> don't forget to write the Student ID and subject name "Assignment\_03" in the mail. And be sure that your code has received by replying **OKAY**.
- Be sincere to obey all of the rules otherwise may be you will get (LOW SCORE.)

**Deadline:** 30 March 12:00 am BD time and 2:00 pm china time.

\_\_Happy Coding\_\_