


ITC

**Lecture # 05**  
**Instructor: Aasim Ali**  
**Course: Intro to Computing**  
**Problem Solving**

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Question 2:

Write a program that gets a number from user, **if** it is **negative** then display "**The number is negative**" **otherwise**, display "**The number is non-negative**".



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**Flow Chart Symbols**

	Input and output (data)		Decision
	Process		Flow
	Connector		Terminal

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Question 3:


Prompt the user for two numbers A & B, computes and displays  $C=A/B$ . **If** the number **B** is **zero**, displays a "**division by Zero**" message.



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Question 1:


Write an **if-else** statement that outputs the word "**High**" if the value of the variable score is greater than **100**, and "**Low**" if the value of score is at most 100.



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Question 4:

Write a program to input age and print **if** the age is valid enough to have a driving license.



Question 5:

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Input two positive numbers from user and display the **maximum** out of them.

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Question 8:

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Write a program that takes **three** numbers and display them into **ascending order**.

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Question 6:

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Three numbers denoted by the variables A, B and C are supplied as input data. Identify and print the **largest** one of these numbers.

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Question 9:

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Write a program that reads an integer and determines and prints whether it is **odd or even**.

(Hint: First use the simple division, then introduce modulus operator).

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Question 7:

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Input **three** positive numbers from user. Compute and display the **average** of the **two** highest numbers.

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Question 10:

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Write a program that reads two integers (in any order) and then print either "**multiple**" or "**not**" according to whether **2<sup>nd</sup> number is multiple of the 1<sup>st</sup> one or not**.

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## Question 11:

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Write a program that reads two integers (in any order) and then print either "multiple" or "not" according to whether **one of the integer is multiple of other**.

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## Question 2:

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Calculate **pay** of an employee based on the hours worked. The input includes the employee **total hours** worked this week and their hourly **pay rate**. The employee is to be paid their basic wage for the first **40 hours** worked and time-and-a-half (i.e. **50% more**) for all **hours above 40** (overtime pay). Output the **regular pay, overtime pay, and total pay** for the week on the screen. If the employee worked 40 hours or less, do not output any information about overtime pay.

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## Question 12:

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Write a program that takes two numbers from user and determines that first number is a **factor** of second number.

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## Question 3:

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Prompts the user to enter his/her **marks** obtained in first semester subjects as well as the **credit hours** of each subject. You have five subjects of your first semester and you can assume the **total** marks in each subject to be **100**. Compute the grade points (**GPTS**) and **Letter grade** of each subject. Finally compute the **total grade points, Grade point Average and Letter grade** for the entire semester. Also mention that whether the student is on probation or not.

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## Question 1:

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Input four positive numbers from user. Display the **smallest** of those values.

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