P s e u d o C o d e - S e q u e n c e

Practice Questions

An algorithm is a procedure for solving a problem in terms of the actions to be executed and the order in which those actions are to be executed. An algorithm is merely the sequence of steps taken to solve a problem. The steps are normally "sequence," "selection," "iteration," and a case-type statement.

Pseudo code is an artificial and informal language that helps programmers develops algorithms. Pseudo code is a "text-based" detail (algorithmic) design tool.

Problem Solving

- Problem solving consists in using methods in orderly manner for finding solution to specific problems.
- Problem solving techniques are used in Artificial Intelligence, Computer Science, Engineering, Mathematics, Medicine etc.
- We can also define problem solving as, a Procedure or a sequence of steps that lead us to the solution of any specific or general problem.

There are four Phases in the Process of Problem Solving:

- Understanding the problem
- Making plan of solution
- Carrying out the plan
- Looking back i.e., verifying

Problem List

1. Write a program that displays sum of two numbers.
2. Write a program that inputs two numbers and adds them.
3. Write a program that inputs the number of hours from user and converts them in minutes.
   Note: Variable name should be meaningful for example: hours, minutes etc.
4. Write a program that inputs the number of weeks from user and converts it into days.
5. Write a program that converts yards into meters.
6. Write a program that inputs two numbers and displays their:
   (a) Sum (b) Difference
   (c) Product (d) Division
7. Write a program that takes temperature in Fahrenheit and converts it into Celsius.
   ((°F - 32) x 5/9 = °C)
8. Write a program that initializes three variables and displays z after computing it as (z=x+y)
9. Write a program that evaluates the following expression: y=3b
   *Try to analyze which variable should be input. Note that 3b equals 3*b, so don't miss understand.*
10. Write a program that inputs a number and displays its square. (Hint : y = x*x)
11. Write a program that evaluates the following expression : z=3x+y
12. Write a program that evaluates the following expression : z=(x+y)/7
13. Write a program that evaluates the following expression : (3x+y)/(z+2)
    (Hint: Try to solve it without involving any additional variable)
14. Write a program that evaluates the following expression : (3x+z)/(y+(4*3))
15. Write a program that calculates and displays the Area of Rectangle. (How many variables should we need to calculate Area?)
16. Write a program that inputs two variables, stores their sum in the first one and the difference in the second one. And dry run your program to see if it works correctly. Also Draw an Execution Sheet on your Notebook to check whether your program works correctly or not.

☺ ☺ ☺ **BEST OF LUCK** ☺ ☺ ☺