(Basics of Python)-Day-1

1. WAP to swap the values of two variables without using a third variable.
2. WAP to find out area of a triangle by inputting the three sides.
3. WAP to enter the two sides of a rectangle and calculate the radius of the circle whose area is same as the rectangle.
4. WAP to calculate the gross salary of an employee by giving basic salary. Also calculate DA (60%) HRA(15%), Conveyance (15%), Medical (10%),Tax(5%).

   Gross salary = Basic + DA + Conveyance + Medical-Tax
5. WAP to find the smallest between three numbers using conditional operator.
6. WAP to evaluate the expression from inputted values of a, b, c, d. x = (a - b) / (c - d). Give a suitable error message if denominator is zero.
7. WAP to compute the real roots of the quadratic equation ax2 +bx+c=0.

Take care of the situations.

- No solution if a & b are zero.

- There is only one root if a=0.

- There is no real root if b2 -4ac <0

- Otherwise compute the two real roots

8. WAP to input the mark of a student in three subjects. Calculate the grade of the student according to the average mark:

i) if average mark >= 90, grade is O

ii) if average mark >= 80, grade is E

iii) if average mark >= 70, grade is A

iv) if average mark >= 60, grade is B

v) if average mark >= 50, grade is C

vi) if average mark >= 40, grade is D

vii) if average mark < 40, grade is F

9. WAP to calculate the electric bill by inputting the previous and present meter reading. (The bill amount for 1st 100 units Rs 2.40 per unit, for next 100 units Rs 3.50 per unit and for rest units Rs 4.20 per unit)
10. WAP to round a given floating point number to integer by considering the floor & ceiling operation without using built in function. Also re write the same program using built-in functions.

    Note: import math and use math.floor(value) math.ceil(value)

11. Find the GCD and LCM of two numbers.
12. WAP to input n random numbers & find the largest and smallest number from those.
13. WAP to convert a decimal number into binary number.
14. WAP to print a number in letters. (i.e. 97: Nine Seven, 635: Six Three Five).
15.

```
                a
            a   b   a
        a   b   c   b   a
    a   b   c   d   c   b   a
a   b   c   d   e   d   c   b   a
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