

**NATIONAL PUBLIC SCHOOL
HSR, BENGALURU**

Worksheet No. : NPSHSR/2022-23-S1/LAB ASSIGN/GR11/Computer Science/LA02

Topic: Operators and Expressions

1. Write a Python program to solve $(x + y) * (x + y)$.

Test Data : $x = 4, y = 3$

Expected Output : $(4 + 3)^2 = 49$

2. Find the roots of a quadratic equation for given A, B and C

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}.$$

3. Find the difference between Compound interest and simple interest for given p, n and r

4. Write a Python function to check whether a number is divisible by another number. Accept two integer values from the user.

5. Accept Name, Class, Section and marks in 3 subjects (out of 100) and find the average for the student.

Output Format

Name of the Student: XXXXXXXXXXXXXXXX	Grade: 11	Section: A/B
Marks:		
Math: XX	Physics: XX	Chemistry: XX
Total Marks: XXX	Average: XX.XX	

6. Write a program to create a calculator(+,-,*,/)
7. Program to swap 2 variables using third variable in python.
8. Program to swap 2 variables without third variable in python.
9. Write a program to obtain x,y,z from user and calculate the expression

$$4x^4 + 3y^3 + 9z + 6$$

10. Accept input as number of years and print the equivalent months, weeks, days, hours