

Optional Assignments

1. Given: `int x = 5;`
 - a. Print the result of:
 - i. `++x` (pre-increment)
 - ii. `x++` (post-increment)
 - iii. `--x` (pre-decrement)
 - iv. `x--` (post-decrement)
2. Given: `int x = 10;` Use assignment operators to perform and print:
 - a. `x += 5`
 - b. `x -= 3`
 - c. `x *= 2`
 - d. `x /= 4`
3. Take random value of variable `x` and Evaluate and print:
 - a. `a & b`
 - b. `a | b`
 - c. `a ^ b`
 - d. `~a`

4. Take random value of variable x and evaluate and print:
 - a. $a \ll 1$ (left shift)
 - b. $a \gg 1$ (right shift)
5. Try to evaluate output of below code and why:
 - c. If $a = 10, b=20, c=30$ then
 - i. $a=b+++++c$;
 - ii. $\text{result} = a + (b * (c - b)) / b$;
 - iii. $\text{result} = a + b * c - ++a / b \% c + (b - c) * a$;
6. Write a Java program to swap the values of two integer variables and display the values before and after the swap. Using a Temporary (Third) Variable