**Lab 1**

Carp Nicoleta

Gr. 931/2

**Lexical Rules for my mini-language:**

1. Similar with C++
2. () parentheses are going to be switched with []
3. Every line ends with . instead of ;
4. Variable names can start with # besides a letter and \_
5. Logical operators are changed: && => `and`, || => `or`, ! => `not`

**P1: Check if 3 lengths given can create a triangle**

int a, b, c.

cout << "Length of a: ".

cin >> a.

cout << "Length of b: ".

cin >> b.

cout << "Length of c: ".

cin >> c.

if [a + b > c and a + c > b and b + c > a]

cout << "They are lengths for a triangle".

else

cout << "No triangle".

**P2: Find factorial of n**

int #n, sol = 1.

cout << "n = ".

cin >> #n.

for [ int i = 1. i <= #n. i++ ]

sol \*= i.

cout << "Solution is " << sol.

**P3: Reverse the array of number**

int len, final(10).

cout << "Length = ".

cin >> len.

if [ len > 10 ]

cout << "Length too big".

else {

for [ int i = 0. i < len. i++ ]

{

cout << "Element " << i + 1 << " = ".

cin >> final ( len - i – 1 ).

}

cout << "Reverse array: ".

for [ int i = 0. i < len. i++ ]

cout << final( i ) << " ".

}

**P1err: 2 lexical errors**

int a = 8, b = 9, ^c = 12. // ^c not a valid identifier

If [a > b || c > b]. // `||` is not an operator

cout << "Yes".

else

cout << "No".