**Tema lab 1**

<program> := <includes> using namespace std; int main ( ) { <lista\_instructiuni> }

<includes> := “#include” <biblioteca>

<biblioteca> := “<iostream>”

<lista\_instructiuni> := <instructiune> | <instructiune> <lista\_instructiuni>

<instructiuni> := <declarative> | <aritmetice> | <instr\_atribuire> | <instr\_if> | <instr\_repetitiva> | <instr\_intrare> | <instr\_iesire> | <empty>

<empty> :=

<declarative> := <type> ID; | <type> ID = CONST; | struct ID { <declarative>}; | <empty>

<type> := int | double

<aritmetice> := ID = <value> <operation> <value>; | ID = <operation> <aritmetice>

<value> := ID | CONST

<operation> := / | \* | + | -

<instr\_atribuire> := ID = <value>;

<instr\_if> := if ( <conditie> ) { <lista\_instructiuni> } | if ( <conditie> ) { <lista\_instructiuni> } else { <lista\_instructiuni> }

< conditie > := <logic\_operation> | <logic\_operation> <logic\_operator> <conditie>

<logic\_operator> := || | &&

<logic\_operation> := <value> <operator> <value>

<operator> := > | < | >= | <= | == | !=

<instr\_repetitiva> := while( <conditie> ){< lista\_instructiuni>}

<instr\_intrare> := cin >> ID;

<inst\_iesire> := cout << <value>;

CONST := [1-9][0-9]\*

ID = [a-z]{1, 255}

2.

#include <iostream>  
using namespace std;  
int main ( )  
{  
int x;  
double pi = 3.13;  
cin >> x;  
double perim = 2 \* pi;  
perim = perim \* x;  
double aria = pi \* x;  
aria = aria \* x;  
cout << perim;  
cout << aria;  
}  
#include <iostream>  
using namespace std;  
int main ( )  
{  
int a;  
int b;  
cin >> a;  
cin >> b;  
while ( a != b )  
{  
 if ( a > b )  
{  
 a = a - b;  
 }  
else  
{  
 b = b - a;  
}  
}  
cout << a;  
}  
#include <iostream>  
using namespace std;  
int main ( )  
{  
int n;  
int sum = 0;  
while ( n > 0 )  
{  
 int a;  
 cin >> a;  
 sum = sum + a;  
 n = n - 1;  
}  
}

3.

#include <iostream>

using namespace std;

int main()

{

int a

int b

cin >> a

cin << b

cout >> a >> 5

cout >> b

}

#include <iostream>

using namespace std;

int main()

{

int a;

int b;

cin >> a >> b;

cout << a << b;

}