*// This program shows different kind of variables used in a C++ program and corresponding scopes*

*#include <iostream>*

*#include <iomanip>*

*#include <cstdlib>*

***using******namespace*** *std;*

***void*** *func1(); // Function prototype*

*//int func2();*

***double*** *func2();*

***void*** *func3(****int****&);*

***void*** *func3(****double****&);*

*//void func3(int);*

*//void func3(double)*

*//int func3(int&);*

***int*** *num;*

***int*** *main()*

*{*

*//num = 100;*

*//cout << "In global scope: " << ::num << endl;*

*cout << "In main, num is " << num << endl;*

*func1();*

*cout << "After func 1 call, back in main, num is " << num << endl;*

*// cout << "After func 2 call, back in main, a is " << a << endl;*

*func3(num);*

*cout << "After func 3 call, back in main, num is " << num << endl;*

***int*** *num = func2();*

*cout << "After func 2 call, back in main, num is " << num << endl;*

*// cout << "After func 3 call, back in main, a is " << a << endl;*

*func3(num);*

*cout << showpoint << fixed << setprecision(2) << func2() << endl;*

***return*** *0;*

*}*

*/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\**

*\* func1，func2, func3 \**

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***void*** *func1()*

*{*

***int*** *num = 20; // Local variable to func1*

*cout << "In func1, num is " << num << endl;*

*}*

***double*** *func2()*

*{*

***int*** *a = 0; // Local variable to func2*

*cout <<"In func2, num is " << num << endl;*

*cout << "In func2, a is " << ++a << endl;*

***return*** *num+10;*

*}*

***void*** *func3(****double****& num)*

*{*

***static******int*** *a = 0; // Local variable to func3*

*num = 1000;*

*cout << showpoint <<"In func3, num is " << num << endl;*

*cout << "In func3, a is " << ++a << endl;*

*}*

***void*** *func3(****int****& num)*

*{*

***static******int*** *a = 0; // Local variable to func3*

*num = 1000;*

*cout << showpoint <<"In func3, num is " << num << endl;*

*cout << "In func3, a is " << ++a << endl;*

*}*