EX1:

1.You can press F5 or Ctrl+F5 to run the program, what is the difference between them?

The difference between F5 and Ctrl+F5 is:

(1).F5 refers to run the program with debugger, which means the program will stop at the breakpoints.

(2).Ctrl+F5 refers to run the program directly.

2.Try to compare (&rc==&c) and (&ri==&i). Why are they different?

(1).Since c and rc are different data types, the compiler will create a temporary variable, and the constant reference rc actually links to the temporary variable.

That’s, statement “const int &rc=c;” actually equals to two step:

“int tmp=c;

const int &rc=tmp;”

Thus, rc and c have different address, that’s why &rc does not equal to &c.

(2).Since ri and i c are the same data types, they don’t have the problem above. Thus they share the same address, that’s why &ri equals to &i.

3. see the source code in the main3.cpp

4.see the source code in the main4.cpp

Call constructor 1 //global object t1 be created

Call constructor 2 //global object t2 be created

start main function //start main function

Call constructor 3 //local object t3 be created

Call constructor 4 //local object t4 be created

Call destructor 4 //local object t4 be destroyed

Call destructor 3 //local object t3 be destroyed

//main function end

Call destructor 2 //global object t2 be destroyed

Call destructor 1 //global object t1 be destroyed

5. see the source code in the main5.cpp

e.g.

(1)n=4,r=2 output:

The 2th (original number) person leave the ring.

The 4th (original number) person leave the ring.

The 3th (original number) person leave the ring.

The 1th (original number) person leave the ring.

Nobody is in the ring now.

(2)n=6,r=5 output:

The 5th (original number) person leave the ring.

The 4th (original number) person leave the ring.

The 6th (original number) person leave the ring.

The 2th (original number) person leave the ring.

The 3th (original number) person leave the ring.

The 1th (original number) person leave the ring.

Nobody is in the ring now.