

```
Source: complex.cpp
1 // $Id: complex.cpp,v 1.12 2013-08-09 15:51:26-07 - - $
2
3 #include <complex>
4 #include <iomanip>
5 #include <iostream>
6 using namespace std;
7
8 typedef complex<double> dcomplex;
9
10 #define D(X,V) cout << "const dcomplex " #X " = " #V ";" << endl; \
11                const dcomplex X = V; \
12                cout << #X << " = " << X << endl;
13
14 int main() {
15     cout << setprecision(15);
16     D(C_N1,-1);
17     D(C_I,sqrt(C_N1));
18     D(C_PI,M_PI);
19     D(C_I_PI,C_I * M_PI);
20     D(C_EXP,exp (C_I_PI));
21     D(E_I_PI_P1,C_EXP + 1.0);
22     return 0;
23 }

Output: ./complex 2>&1
1 const dcomplex C_N1 = -1;
2 C_N1 = (-1,0)
3 const dcomplex C_I = sqrt(C_N1);
4 C_I = (0,1)
5 const dcomplex C_PI = M_PI;
6 C_PI = (3.14159265358979,0)
7 const dcomplex C_I_PI = C_I * M_PI;
8 C_I_PI = (0,3.14159265358979)
9 const dcomplex C_EXP = exp (C_I_PI);
10 C_EXP = (-1,1.22460635382238e-16)
11 const dcomplex E_I_PI_P1 = C_EXP + 1.0;
12 E_I_PI_P1 = (0,1.22460635382238e-16)

pstatus: 0x0000 EXIT STATUS = 0
```