

```

1  #include<iostream>
2  using namespace std;
3
4  class CDemo
5  {
6      int m_iNo1;
7      int m_iNo2;
8
9  public:
10     CDemo(int iNo1 = 10, int iNo2 = 20)
11     {
12         m_iNo1 = iNo1;
13         m_iNo2 = iNo2;
14     }
15
16     CDemo* This()
17     {
18         return this;
19     }
20
21     friend CDemo& operator +(CDemo &refObj);
22     friend CDemo operator -(CDemo &refObj);
23     friend CDemo operator ~(CDemo &refObj);
24     friend CDemo* operator &(CDemo &refObj);
25     friend CDemo& operator ++(CDemo &refObj);
26     friend CDemo operator ++(CDemo &refObj, int);
27     friend CDemo& operator --(CDemo &refObj);
28     friend CDemo operator --(CDemo &refObj, int);
29 };
30
31 CDemo& operator +(CDemo &refObj)
32 {
33     cout<<"In unary + operator\n";
34     return refObj;
35 }
36
37 CDemo operator -(CDemo &refObj)
38 {
39     cout<<"In unary - operator\n";
40     return CDemo(-refObj.m_iNo1, -refObj.m_iNo2);
41 }
42
43 CDemo operator ~(CDemo &refObj)
44 {
45     cout<<"In unary ~ operator\n";
46     return CDemo(~refObj.m_iNo1, ~refObj.m_iNo2);
47 }
48
49 CDemo* operator &(CDemo &refObj)
50 {
51     cout<<"In unary & operator\n";
52     return refObj.This();
53 }
54
55 CDemo& operator ++(CDemo &refObj)
56 {
57     cout<<"In Pre-increment operator\n";
58     refObj.m_iNo1++;
59     refObj.m_iNo2++;
60     return refObj;
61 }
62
63 CDemo operator ++(CDemo &refObj, int)
64 {
65     cout<<"In Post-increment operator\n";
66     CDemo temp(refObj.m_iNo1, refObj.m_iNo2);
67     refObj.m_iNo1++;

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68         refObj.m_iNo2++;
69         return temp;
70     }
71
72     CDemo& operator --(CDemo &refObj)
73     {
74         cout<<"In Pre-decrement operator\n";
75         refObj.m_iNo1--;
76         refObj.m_iNo2--;
77         return refObj;
78     }
79
80     CDemo operator --(CDemo &refObj, int)
81     {
82         cout<<"In Post-decrement operator\n";
83         CDemo temp(refObj.m_iNo1,refObj.m_iNo2);
84         refObj.m_iNo1--;
85         refObj.m_iNo2--;
86         return temp;
87     }
88
89     int main()
90     {
91         CDemo obj;
92
93         +obj;    // +(obj);
94
95         -obj;
96
97         ~obj;
98
99         ++obj;
100
101         obj++;
102
103         --obj;
104
105         obj--;
106
107         cout<<&obj;
108
109         return 0;
110     }
111

```