

```
1  #include <iostream>
2  using namespace std;
3
4  class NumDays
5  {
6  private:
7      double hours;
8      double days;
9  public:
10     NumDays(double h = 0)
11     {
12         hours = h; days = h / 8;
13     }
14
15     void setHours(double h)
16     {
17         hours = h; days = h / 8;
18     }
19
20     double getHours() const
21     {
22         return hours;
23     }
24
25     void setDays(double d)
26     {
27         days = d; hours = d * 8;
28     }
29
30     double getDays() const
31     {
32         return days;
33     }
34     friend NumDays operator + (const NumDays& left, const NumDays& right);
35     NumDays operator ++ ();      // Prefix ++
36     NumDays operator ++ (int);   // Postfix ++
37 };
38
39 NumDays operator + (const NumDays& left, const NumDays &right)
40 {
41     NumDays temp;
42
43     temp.setHours(left.getHours() + right.getHours());
44     return temp;
45 }
46
47 //*****
48 // Overloaded - operator *
49 //*****
```

```
50
51 NumDays operator - (const NumDays& left, const NumDays& right)
52 {
53     NumDays temp;
54
55     temp.setHours(left.hours - right.hours);
56     return temp;
57 }
58
59 //*****
60 // Overloaded prefix ++ operator *
61 //*****
62
63 NumDays operator ++ (NumDays& obj)
64 {
65     obj.setHours(obj.getHours()+1);
66     return obj;
67 }
68
69 //*****
70 // Overloaded postfix ++ operator *
71 //*****
72
73 NumDays operator ++ (NumDays& obj, int i)
74 {
75     NumDays temp = obj;
76     obj.setHours(obj.getHours() + 1);
77     return temp;
78 }
79
80 //*****
81 // Overloaded prefix -- operator *
82 //*****
83
84 NumDays NumDays::operator -- ()
85 {
86     hours--;
87     days = hours / 8;
88     return *this;
89 }
90
91 //*****
92 // Overloaded postfix -- operator *
93 //*****
94
95 NumDays NumDays::operator -- (int) // Postfix
96 {
97     NumDays temp(hours);
98
```

```
99     hours--;  
100     days = hours / 8;  
101     return temp;  
102 }  
103  
104 int main()  
105 {  
106     NumDays one(25), two(15), three, four;  
107  
108     // Display one and two.  
109     cout << "One: " << one.getDays() << endl;  
110     cout << "Two: " << two.getDays() << endl;  
111  
112     // Add one and two, assign result to three.  
113     three = one + two;  
114  
115     // Display three.  
116     cout << "Three: " << three.getDays() << endl;  
117  
118     // Postfix increment...  
119     four = three++;  
120     cout << "Four = Three++: " << four.getDays() << endl;  
121  
122     // Prefix increment...  
123     four = ++three;  
124     cout << "Four = ++Three: " << four.getDays() << endl;  
125  
126     // Postfix decrement...  
127     four = three--;  
128     cout << "Four = Three--: " << four.getDays() << endl;  
129  
130     // Prefix decrement...  
131     four = --three;  
132     cout << "Four = --Three: " << four.getDays() << endl;  
133  
134     return 0;  
135 }  
136
```