

```

23     cliche.message();
24     return 0;
25 }

```

3. Based on Program 8.8:
- Identify which **showValue** function applies the overriding and overloading concept.
 - Trace the output of the program.
 - Define the difference between method overriding and method overloading.

```

1 //Program 8.8
2 #include <iostream>
3 using namespace std;
4
5 class Superclass3{
6     public:
7         void showValue(int a){
8             cout<<a<<endl;
9         }
10 };
11
12 class Subclass3:public Superclass3{
13     public:
14         void showValue(int a){
15             cout<<"The subclass: \t"<<a<<endl;
16         }
17
18         void showValue(double a){
19             cout<<a<<endl;
20         }
21 };
22
23 int main(){
24     Subclass3 obj;
25     obj.showValue(8);
26     obj.showValue(8.97);
27     return 0;
28 }

```

4. Consider the following two classes in Program 8.9.

```

1 //Program 8.9
2 #include<iostream>
3 using namespace std;
4
5 class B{
6     private:
7         int k;
8
9     protected:
10         int i;
11         int j;

```

```

12     void printMe();
13
14     public:
15         B(int j){
16             this->j=j;
17         }
18
19         void changeValue(int);
20     };
21
22     void B::printMe(){
23         cout<<"i:"<<i<<" j:"<<j<<" k:"<<k<<endl;
24     }
25
26     void B::changeValue(int j){
27         this->j = j;
28     }
29
30     class C:public B{
31     private:
32         int j;
33
34     public:
35         C(int value){
36             i = 6;
37             j = 10;
38         }
39         void printMe();
40
41     protected:
42         void changeValue(int);
43     };
44
45     void C::printMe(){
46         B::printMe();
47         cout<<"j: "<<j;
48     }
49
50     void C::changeValue(int j){
51         B::changeValue(j);
52         this->i=25;
53     }
54
55     int main(){
56         C obj(12);
57         obj.changeValue(45);
58         obj.printMe();
59     }

```

The Program 8.9 will result in a compilation errors. You are required to:

- Identify which line(s) of code result in s compilation error(s).
- Give a reason(s) for the error(s).

c. Correct the statement(s).

Write the output of the program once the error(s) have been corrected.