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```

#include <iostream>
2 using namespace std;

4 class Base
  {
6 public:
    Base(int newvalue);
8    ~Base();
    virtual int foo(int a);
10   int count;
    private:
12   int value;
  };
14 Base::Base(int newvalue) : value(newvalue)
  {
16   count = 0;
  }
18 Base::~~Base()
  {}
20 int Base::foo(int a)
  {
22   count = count+100; return 10*value + a;
  }
24
class Deriv : public Base
26 {
  public:
28   Deriv(int newvalue);
    virtual int foo(int a);
30 private:
    int value;
32   Base* bp;
  };
34 Deriv::Deriv(int newvalue) : Base(newvalue - 2), value(newvalue), bp(new Base(newvalue - 1))
  {}
36 int Deriv::foo(int a)
  {
38   return 100*value + a;
  }
40
int footwo(Base& b1, Deriv d2)
42 {
    return b1.foo(1) + d2.foo(2);
44 }

46 int main()
  {
48   Deriv d(9);
    Deriv* dp = new Deriv(5);
50   cout << footwo(d, *dp) << endl;
    cout << d.count << endl;
52   return 0;
  }

```

Handwritten annotations:
 - A bracket on line 12 groups the private members.
 - A bracket on line 24 groups the class Deriv definition.
 - A bracket on line 38 groups the return statement in Deriv::foo.
 - A bracket on line 40 groups the footwo function definition.
 - A bracket on line 46 groups the main function definition.
 - A bracket on line 52 groups the return statement in main.
 - A note "Delete dp" is written next to line 52.
 - A diagram on the right side shows the following structure:
 d
 value(9)
 ↓
 Base(7)
 bp Base(8)
 dp
 value(5)
 ↓
 Base(3)
 bp Base(4)