

```

#include <iostream>
using namespace std;

class Base{
private:
    int t;
public:
    Base() {
        cout << "Base constructor-0 param" << endl;
        t=0;
    }
    Base(int u) {
        cout << "Base constructor-1 param" << endl;
        t=u;
    }
    Base(const Base& b){
        t=b.t;
        cout << "Base copy constructor" << endl;
    }
    ~Base(){
        cout<<"Base destructor" << endl;
    }
};

```

```

class DerivedA: public Base {
public:
    DerivedA(){
        cout<<"DerivedA constructor-0 param"<<endl;
        a=0;
    }
    DerivedA(int x) {
        cout<<"DerivedA constructor-1 param"<<endl;
        a = x;
    }
    DerivedA(int u, int x) {
        cout<<"DerivedA constructor-2 params"<<endl;
        a = x;
    }
    DerivedA(const DerivedA& da){
        a=da.a;
    }
    ~DerivedA(){
        cout<<"DerivedA destructor" << endl;
    }
    void print() {
        cout << "DerivedA = " << a << endl;
    }
private:
    int a;
};

```

```

class DerivedB: public Base {
public:
    DerivedB() {
        cout << "DerivedB constructor-0 param" << endl;
        b = 0;
    }
    DerivedB(float x) {
        cout << "DerivedB constructor-1 param" << endl;
        b = x;
    }
    DerivedB(int u, float x):Base(u) {
        cout << "DerivedB constructor-2 params" << endl;
        b = x;
    }
    DerivedB(const DerivedB& db):Base(db) {
        cout << "DerivedB copy constructor" << endl;
        b=db.b;
    }
    ~DerivedB(){
        cout<<"DerivedB destructor" << endl;
    }
    void print() {
        cout << "DerivedB = " << b << endl;
    }
private:
    float b;
};

```

```

void f(Base b){
    cout<<"Function f" << endl;
}

```

```

int main(){
    Base b1;
    Base b2(3);
    Base*pb=new Base(1);

    DerivedA da1;
    DerivedA da2(2);
    DerivedA da3(2,3);
    DerivedA da4(da2);
    pb=new DerivedA(4,5);

    DerivedB db1;
    DerivedB db2(2.7);
    DerivedB db3(3,2.7);
    DerivedB db4(db2);
    pb=new DerivedB(4,5);

    f(b1);
    f(da1);
    f(db1);
    delete pb;
    return 0;
}

```