Test 1

```
00
     public class Sei {
01
         char f() { return '6'; }
02
         public static void main(String e[]) {
03
             Sei a = new Sei();
04
             Sei b = new Sette();
05
             Sette c = new Sette();
             System.out.print(a.f() + " " + b.f() + " " + c.f() + "
06
     <u>");</u>
07
             char ch[] = {'A', 'B', 'A', 'B', 'A', 'B'};
08
             int i1 = 0, i2 = 2, i3 = 4;
09
             if (a.equals(b)) i1++;
10
             if (b.equals(a)) i2++;
11
             if (c.equals(b)) i3++;
12
             System.out.println(ch[i1] + " " + ch[i2] + " " +
     ch[i3]);
13
14
     class Sette extends Sei
         char f() { return '7'; }
15
16
         public boolean equals(Object a) {
17
             return (a instanceof Sei);
18
19
         public int hashCode() { return 3; }
20
```

Test 2

```
public class Uno {
00
01
         static Collection c=new HashSet();
02
         public static void main(String a[]) {
03
             Collection c=new LinkedList();
04
             Uno u=new Uno();
05
             c.add(u); c.add(u);
06
             u.f();
07
             System.gc();System.runFinalization();
80
             System.out.println(c.size());
09
10
         void f() {
11
             A a=new A("K");
12
             A b=new A("L");
13
             c.add(b);
14
15
         class A {
16
             String s="";
17
             A(String s) {this.s=s; System.out.print(this);}
18
             public String toString(){return s;}
19
             public void finalize(){System.out.print(this);}
20
```

Test 3

01	public class Due {
02	static Collection <due> s=new HashSet<due>();</due></due>
03	int k,j;
04	<pre>Due(int k, int j) {this.k=k; this.j=j;}</pre>
05	<pre>public boolean equals(Object d){</pre>
06	return k-j==((Due)d).j-((Due)d).k;
07	}
08	<pre>public int hashCode(){return 1;}</pre>
09	<pre>public static void main(String[] m){</pre>
10	s.add(new Due(1,2)); s.add(new Due(0,1));
11	s.add(new Due(2,1)); s.add(new Due(1,0));
12	<pre>System.out.print(s.size());</pre>
13	<pre>for (Due x:s){System.out.print(x.k+" "+x.j);}</pre>
14	}
15	<pre>public static void main(String m){</pre>
16	s.add(new Due(1,0));
17	<pre>System.out.print(s.size());</pre>
18	} }

Test 4

01	public class Due {
02	<pre>static Collection<due> s=new HashSet<due>();</due></due></pre>
03	static int k,j;
04	<pre>Due(int k, int j) {this.k=k; this.j=j;}</pre>
05	<pre>public boolean equals(Object d){</pre>
06	return k-j==((Due)d).j-((Due)d).k;
07	}
08	<pre>public int hashCode(){return 1;}</pre>
09	<pre>public static void main(String[] m){</pre>
10	s.add(new Due(1,2)); s.add(new Due(0,1));
11	s.add(new Due(2,1)); s.add(new Due(1,0));
12	<pre>System.out.print(s.size());</pre>
13	<pre>for (Due x:s){System.out.print(x.k+" "+x.j);}</pre>
14	} }

Test 5

```
01
     public class Due {
         Collection<Due> s=new HashSet<Due>();
02
03
         static int k,j;
04
         Due(int k, int j) {this.k=k;
                                         this.j=j;}
05
         public boolean equals(Object d){
06
             return k-j==((Due)d).j-((Due)d).k;
07
80
         public int hashCode(){return 1;}
         public static void main(String[] m){
10
             s.add(new Due(1,2)); s.add(new Due(0,1));
11
             s.add(new Due(2,1)); s.add(new Due(1,0));
12
             System.out.print(s.size());
13
             for (Due x:s){System.out.print(x.k+" "+x.j);}
14
```

Test 6

```
00
     public class Tre {
         class A {
01
02
             public A(int k) {System.out.print(k);}
03
             public void finalize() {System.out.print("A");}
04
05
         class B extends A {
             public B(int k) {System.out.print(k);}
06
07
             public void finalize() {System.out.print("A");}
08
09
         public static void main (String z[]){
10
            new Tre();
11
12
         Tre(){
13
             A a=new B(3);
             B b=(B)a;
14
             a=null;
15
16
             b=new B(3);
             System.gc(); System.runFinalization();
17
18
```

Test 7

```
01 | #include <iostream>
02 using namespace std;
03 int x[] = \{-2, -1, 0, 1, 2\};
04 void f(int* x, int y[]) {
05
        x[*y] = -y[*x];
06 }
07 | int main(int argc, char** argv) {
80
        int * p = \overline{x + 1};
09
        f(p, p);
10
        for (int * s = x; s < x + 5; s++) {
11
           cout << *s;
12
13
        return 0;
14 }
```

Test 8

```
01 public class F{
02
        int x=2;
03
        F(int x) {
04
           f(x);
05
           f();
06
           System.out.println(x);
07
80
        void f() { x++; System.out.print(x);}
09
        void f(int x) { this.x++; x--;System.out.print(x);}
10
       public static void main(String arg[]) {
11
              F x=new F(9);
12
        }}
```