

1. Program

```
class A
{
    static void test(int i)
    {
        System.out.println("from test");
        System.out.println(i);
    }
    public static void main(String[] args)
    {
        System.out.println("from main begin");
        test();
        System.out.println("from main end");
    }
}
```

Output: compile time error

2. Program

```
class B
{
    static void test(int i)
    {
        System.out.println("from test");
        System.out.println(i);
    }

    public static void main(String[] args)
    {
        System.out.println("main begin");
        test(10);
        System.out.println("-----");
        int k = 100;
        test(k);
        System.out.println("main end");
    }
}
```

Output: main begin

from test

10

```
    from test
    100
    main end
```

3. Program

```
class C
{
    static void test(int i)
    {
        System.out.println("from test:" + i);
    }
    public static void main(String[] args)
    {
        test(100);
        int k = 200;
        test(k);
        test(k + 300);
        int m;
        test(m);
        System.out.println("done");
    }
}
```

Output: compile time error

4. Program

```
class D
{
    static void test(int i)
    {
        System.out.println("from test:" + i);
    }
    public static void main(String[] args)
    {
        int m;
        test(m = 10);
        System.out.println("done");
    }
}
```

Output: from test:10

Done

5. Program

```
class E
{
    static void test(int i, int j)
    {
        System.out.println("i = " + i + ", j = " + j);
    }
    public static void main(String[] args)
    {
        test(10, 20);
        int i = 200;
        test(i, 500);
        test(2000, i);
        test(i, i);
        System.out.println("done");
    }
}
```

Output: i = 10, j = 20

i = 200, j = 500

i = 2000, j = 200

i = 200, j = 200

done

6. Program

```
class F
{
    static void test(int i)
    {
        System.out.println("test:" + i);
        i = 10;
    }
    public static void main(String[] args)
    {
        int i = 20;
        System.out.println("main begin:" + i);
        test(i);
        System.out.println("main end:" + i);
    }
}
```

Output: main begin:20

test:20

main end:20

7. Program

```
class G
{
    static void test(int i)
    {
        System.out.println("test:" + i++);
    }
    public static void main(String[] args)
    {
        int i = 10;
        test(i);
        System.out.println("main:" + i);
    }
}
```

**Output: test:10
main:10**

8. Program

```
class H
{
    static void test(int i)
    {
        System.out.println("test:" + i++);
        System.out.println("test:" + i);
    }
    public static void main(String[] args)
    {
        int i = 10;
        test(i);
        System.out.println("main:" + i);
    }
}
```

**Output: test:10
test:11
main:10**

9. Program

```
class I
{
    static void test(boolean flag, int x)
    {
        System.out.println("from test");
        System.out.println(flag);
        System.out.println(x);
    }
    public static void main(String[] args)
    {
        System.out.println("from main");
        test(true, 20);
        System.out.println("-----");
        boolean f1 = false;
        test(f1, 30);
    }
}
```

Output: from main

from test

true

20

from test

false

30

10. Program

```
class J
{
    static void test(double d1, char c1)
    {
        System.out.println("from test");
        System.out.println(d1);
        System.out.println(c1);
    }
    public static void main(String[] args)
    {
        System.out.println("from main");
        test(90.9090, 'a');
    }
}
```

```
        double v1 = 89.0909;
        char v2 = 's';
        test(v1, v2);
    }
}
```

Output: from main

from test

90.909

a

from test

89.0909

S

11. Program

```
class K
{
    static int test()
    {
        int i = 0;
        return i++;
    }

    public static void main(String[] args)
    {
        System.out.println(test());
    }
}
```

Output: 0

12. Program

```
class L
{
    static int test()
    {
        int i = 0;
        return i++;
    }

    public static void main(String[] args)
    {
        int i = 0;
```

```
        System.out.println(test());  
        System.out.println(i);  
    }  
}
```

Output: 0

0

13. Program

```
class M  
{  
    static int test(int i)  
    {  
        return i++;  
    }  
  
    public static void main(String[] args)  
    {  
        int i = 0;  
        System.out.println(test(i));  
        System.out.println(i);  
    }  
}
```

Output: 0

0

14. Program

```
class N  
{  
    static int test(int i)  
    {  
        return i--;  
    }  
  
    public static void main(String[] args)  
    {  
        int i = 0;  
        System.out.println(i);  
        System.out.println(test(i));  
        System.out.println(i);  
        i = test(i);  
        System.out.println(i);  
    }  
}
```

```
}  
Output: 0  
0  
0  
0
```

15. Program

```
class O  
{  
    static int test(int i)  
    {  
        return ++i;  
    }  
    public static void main(String[] args)  
    {  
        int i = 0;  
        System.out.println(test(i));  
        System.out.println(i);  
    }  
}
```

```
Output: 1  
0
```

16. Program

```
class P  
{  
    static int test(int i)  
    {  
        return --i;  
    }  
  
    public static void main(String[] args)  
    {  
        System.out.println(test(9));  
        int i = 0;  
        System.out.println(test(i));  
        System.out.println(i);  
    }  
}
```


Output: 8

-1

0

17. Program

```
class Q
{
    static int test(int i)
    {
        return i++;
    }
    public static void main(String[] args)
    {
        int i = 0;
        System.out.println(test(i++));
        System.out.println(i);
    }
}
```

Output: 0

1

18. Program

```
class R
{
    static int test(int i)
    {
        return i--;
    }
    public static void main(String[] args)
    {
        int i = 0;
        System.out.println(test(i++));
        System.out.println(i);
        i = 0;
        System.out.println(test(i--));
        System.out.println(i);
    }
}
```

Output: 0

1

0

-1

19. Program

```
class S
{
    static int test(int i)
    {
        return ++i;
    }
    public static void main(String[] args)
    {
        int i = 0;
        System.out.println(test(i++));
        System.out.println(i);
        i = 0;
        System.out.println(test(i--));
        System.out.println(i);
    }
}
```

Output: 1

1
1
-1

20. Program

```
class T
{
    static int test(int i)
    {
        return i++;
    }
    public static void main(String[] args)
    {
        int i = 0;
        System.out.println(i);
        i = test(i++);
        System.out.println(i);
    }
}
```

Output: 0

0

21. Program

```
class U
{
    static int test(int i)
    {
        return i--;
    }
    public static void main(String[] args)
    {
        int i = 0;
        System.out.println(i);
        i = test(i--);
        System.out.println(i);
    }
}
```

Output: 0

0

22. Program

```
class V
{
    static int test(int i)
    {
        return i++;
    }
    public static void main(String[] args)
    {
        int i = 0;
        int j = test(i++) + i;
        System.out.println(i);
        System.out.println(j);
    }
}
```

Output: 1

1

23. Program

```
class W
{
    static int test(int i)
    {
        return ++i;
    }

    public static void main(String[] args)
    {
        int i = 0;
        int j = test(i++) + i + test(++i);
        System.out.println(i);
        System.out.println(j);
    }
}
```

Output: 2
5

24. Program

```
class X
{
    static int test(int i)
    {
        return i++;
    }

    public static void main(String[] args)
    {
        int i = 0;
        int j = i++ + i + test(i++) + //2
                ++i + test(i++) + i + //10
                --i + test(i--) + i + //8
                i + test(i--) + ++i; //6

        System.out.println(i);
        System.out.println(j);
    }
}
```

Output: 2
26

25. Program

```
class Y
{
    static int test1(int i)
    {
        return i++;
    }

    static int test2(int i)
    {
        return ++i;
    }

    public static void main(String[] args)
    {
        int i = 0;
        int j = i++ + i + test1(i++) + i +
                ++i + i + test1(++i) + i +
                ++i + i + test2(++i) + i +
                i++ + i + test2(i++) + i;

        System.out.println(i);
        System.out.println(j);
    }
}
```

Output: 8

70

26. Program

```
class Z
{
    static int test1(int i)
    {
        return i++;
    }

    static int test2(int i)
    {
        return test1(++i);
    }

    static int test3(int i)
    {
        return test1(i++);
    }
}
```

```
public static void main(String[] args)
{
    int i = 0;
    int j = test1(i++) + i;
    System.out.println(i);
    System.out.println(j);
    i = j = 0;
    j = test1(++i) + i;
    System.out.println(i);
    System.out.println(j);
    i = j = 0;
    j = test2(++i) + i;
    System.out.println(i);
    System.out.println(j);

    i = j = 0;
    j = test3(++i) + i;
    System.out.println(i);
    System.out.println(j);

    i = j = 0;
    j = test3(++i) + i +
        test1(i++) + i +
        test2(i++) + i +
        test2(++i) + i;
    System.out.println(i);
    System.out.println(j);
}
}
```

Output: 1

```
1
1
2
1
3
1
2
4
20
```

27. Program

```
class Z1
{
    static int test(int i)
    {
        return i++;
    }
    public static void main(String[] args)
    {
        int i = 0;
        i = i++ + i + test(i++) + i;
        System.out.println(i);
    }
}
```

Output: 4

28. Program

```
class Z2
{
    static int test1(int i)
    {
        return ++i;
    }
    static int test2(int i)
    {
        return test1(++i) + test1(i++);
    }
    public static void main(String[] args)
    {
        int i = 0;
        i = test1(i++) + i +
            test2(i++) + i +
            test2(++i) + i;
        System.out.println(i);
    }
}
```

Output: 23

29. Program

```
class Z3
{
    static int test1(int i)
    {
        //i = 2;
        return test2(i++) + test2(++i);
        //test2(2)   test2(4)
        // 14      + 26
    }
    static int test2(int i)
    {
        //i = 4
        return test3(i--) + test3(--i);
        // test3(4) + test3(2)
        // 16      + 10
    }
    static int test3(int i)
    {
        return i++ + ++i + i;
    }
    public static void main(String[] args)
    {
        int i;
        i = test1(i = 0);
        System.out.println(i);
        i = test2(i = 0);
        System.out.println(i);
        i = test1(i++);
        System.out.println(i);
        i = test2(++i); //test2(4)
        System.out.println(i);
    }
}
```

Output: 16

2

40

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