

```

9      int counter = 0;
10     int theNumberThree = 3;
11     // first block begins
12     String aString = "123";
13     String bString = "123";
14     String cString = "12" + "3";
15     String dString = "12" + theNumberThree;
16     String eString = "123" + aString;
17     String fString = "123123";

```

```

19     System.out.println("" + ++counter + ". " +
( aString == bString ) );

```

Since aString and bString is pointing to the same address 0x0000, so the output of this statement is True

```

20     System.out.println("" + ++counter + ". " +
( bString == cString ) );

```

Since bString and cString is pointing to the same address 0x0000, so the output of this statement is True

```

21     System.out.println("" + ++counter + ". " +
( cString == dString ) );

```

Since cString and dString is pointing to different addresses. cString is pointing to 0x0000 while dString is pointing to 0x0001, so the output of this statement is False

```

22     System.out.println("" + ++counter + ". " +
( eString == fString ) );

```

Since aString and fString is pointing to different addresses. aString is pointing to 0x0000 while fString is pointing to 0x0003, so the output of this statement is False

|        |          |                |
|--------|----------|----------------|
| 0x0000 | "123"    | string literal |
| 0x0001 | "123"    |                |
| 0x0002 | "123123" |                |
| 0x0003 | "123123" | string literal |
| 0x0004 |          |                |
| 0x0005 | 0x0003   | fString        |
| 0x0006 | 0x0002   | eString        |
| 0x0007 | 0x0001   | dString        |
| 0x0008 | 0x0000   | cString        |
| 0x0009 | 0x0000   | bString        |
| 0x000A | 0x0000   | aString        |

```
26 String aaString = "123";
27 String bbString = new String("123");
28 String ccString = new String(aaString);
29 String ddString = method1();
30 String eeString = method2();
31 String ffString = method1() + method2();
32
33 System.out.println(""" + ++counter + ". " + ( aaString == bbString ) );
34 System.out.println(""" + ++counter + ". " + ( aaString == ccString ) );
35 System.out.println(""" + ++counter + ". " + ( aaString == ddString ) );
36 System.out.println(""" + ++counter + ". " + ( aaString == eeString ) );
37 System.out.println(""" + ++counter + ". " + ( ffString == "123123" ) );
```

|        |          |                |
|--------|----------|----------------|
| 0x0000 | "123"    | string literal |
| 0x0001 | "123"    |                |
| 0x0002 | "123"    |                |
| 0x0003 | "123123" | string literal |
| 0x0004 | "123123" |                |
| 0x0005 | 0x0004   | ffString       |
| 0x0006 | 0x0000   | eeString       |
| 0x0007 | 0x0000   | ddString       |
| 0x0008 | 0x0002   | ccString       |
| 0x0009 | 0x0001   | bbString       |
| 0x000A | 0x0000   | aaString       |

```
33 System.out.println(""" + ++counter + ". " + ( aaString == bbString ) );
```

Since aaString and bbString is pointing to differen addresses. aaString is pointing to 0x0000 while bbString is pointing to 0x0001, so the output of this statememt is False

```
34 System.out.println(""" + ++counter + ". " + ( aaString == ccString ) );
```

Since aaString and cc String is pointing to differen addresses. aaString is pointing to 0x0000 while ccString is pointing to 0x0002, so the output of this statememt is False

```
35 System.out.println(""" + ++counter + ". " + ( aaString == ddString ) );
```

Since aaString and ddString is pointing to the same address 0x0000, so the output of this statememt is True

```
36 System.out.println(""" + ++counter + ". " + ( aaString == eeString ) );
```

Since aaString and eeString is pointing to the same address 0x0000, so the output of this statememt is True

```
37 System.out.println(""" + ++counter + ". " + ( ffString == "123123" ) );
```

Since ffString and string literal "123123" are pointing to differen addresses. ffString is pointing to 0x0004 while "123123" is at address 0x0001, so the output of this statememt is False