```java
 1 package module303.core_java_operators;
 2
 3 public class TernaryOperatorDemo {
 4     public static void main(String[] args) {
 5         int age = 18;
 6         String result = age < 100 ?
 7                 "Less than 100" : "Greater than 100
   ";
 8         System.out.println(result); //Less than 100
 9     }
10 }
11
```

```java
 1 package module303.core_java_operators;
 2
 3 public class BitwiseOperatorsDemo {
 4     public static void main(String[] args) {
 5         int x = 58;
 6         int y = 13;
 7         System.out.println("x & y : " + (x & y));
   //returns 8 = 1000
 8         System.out.println("x | y : " + (x | y));
   //63=111111
 9         System.out.println("x ^ y : " + (x ^ y));
   //55=11011
10         System.out.println("~x : " + (~x));   //-59
11         System.out.println("x << y : " + (x << y));
12         System.out.println("x >> y : " + (x >> y));
13
14     }
15 }
16
```

```
 1 package module303.core_java_operators;
 2
 3 public class LogicalOperatorsDemo {
 4     public static void main(String[] args) {
 5         boolean x = true;
 6         boolean y = false;
 7         System.out.println("x & y : " + (x & y));
 8         System.out.println("x && y : " + (x && y));
 9         System.out.println("x | y : " + (x | y));
10         System.out.println("x || y : " + (x || y));
11         System.out.println("x ^ y : " + (x ^ y));
12         System.out.println("!x : " + (!x));
13     }
14 }
15
```

```java
 1 package module303.core_java_operators;
 2
 3 public class AssignmentOperatorsDemo {
 4     public static void main(String[] args) {
 5         //Assigning Primitive Values
 6         int j, k;
 7         j = 10; //j gets the value 10.
 8         j = 5; //j gets the value 5. The previous
   value is overwritten.
 9         k = j; //k gets the value 5.
10         System.out.println("j is : " + j);
11         System.out.println("k is : " + k);
12
13         //Multiple Assignments
14         k = j = 10; // (k = (j = 10))
15         System.out.println("j is : " + j);
16         System.out.println("k is : " + k);
17
18
19         //TODO Auto-generated method stub
20         int x, y = 10, z = 5;
21         x = y + z;
22         System.out.println("+ operator resulted in
   " + x);
23         x = y - z;
24         System.out.println("- operator resulted in
   " + x);
25         x = y * z;
26         System.out.println("* operator resulted in
   " + x);
27         x = y / z;
28         System.out.println("/ operator resulted in
   " + x);
29         x = y % z;
30         System.out.println("% operator resulted in
   " + x);
31         x = y++;
32         System.out.println("Postfix ++ operator
   resulted in " + x);
33         x = ++z;
34         System.out.println("Prefix ++ operator
```

```java
34  resulted in " + x);
35          x = -y;
36          System.out.println("Unary operator resulted
     in " + x);
37          //Some examples of special cases
38          int tooBig = Integer.MAX_VALUE + 1;
39          int tooSmall = Integer.MIN_VALUE - 1;
40
41          System.out.println("tooBig becomes " +
     tooBig);
42          System.out.println("tooSmall becomes " +
     tooSmall);
43
44          System.out.println(4.0 /0.0);
45          System.out.println(-4.0 / 0.0);
46          System.out.println(0.0 / 0.0);
47          double d1 = 12 / 8;
48          double d2 = 12.0F / 8;
49          System.out.println("d1 is " + d1);
50          System.out.println("d2 is " + d2);
51
52
53      }
54 }
55
```

```java
 1 package module303.core_java_operators;
 2
 3 public class RelationalOperatorsDemo {
 4     public static void main(String[] args) {
 5         int x = 10, y =5;
 6         System.out.println("x > y : " + (x > y));
 7         System.out.println("x >= y : " + (x >= y));
 8         System.out.println("x <= y : " + (x <= y));
 9         System.out.println("x == y : " + (x == y));
10         System.out.println("x != y : " + (x != y));
11
12         int variable1 = 50, variable2 = 100,
   variable3 = 50;
13         System.out.println("variable1 = " +
   variable1);
14         System.out.println("variable2 = " +
   variable2);
15         System.out.println("variable3 = " +
   variable3);
16         System.out.println("variable1 == variable2
   : " + (variable1 == variable2));
17         System.out.println("variable1 == variable3
   : " + (variable1 == variable3));
18     }
19 }
20
```