1.Write your own program using arithmetic operators.

```
class Main {
  public static void main(String[] args) {

    int a = 12, b = 5;
    System.out.println("a + b = " + (a + b));
    System.out.println("a - b = " + (a - b));
    System.out.println("a * b = " + (a * b));
    System.out.println("a / b = " + (a / b)
    System.out.println("a % b = " + (a % b));
  }
}
```

**Output:**

```
a + b = 17
a - b = 7
a * b = 60
a / b = 2
a % b = 2
```

2. Write your own program using  assignment operators.

```
class Main {
  public static void main(String[] args) {


    int a = 4;
    int var;


    var = a;
    System.out.println("var using =: " + var);


    var += a;
    System.out.println("var using +=: " + var);
```

```
    var *= a;
    System.out.println("var using *=: " + var);
  }
}
```

## Output

```
var using =: 4
var using +=: 8
var using *=: 32
```

3.Write your own program using relational operators.

```
class Main {
  public static void main(String[] args) {

    int a = 7, b = 11;

    System.out.println("a is " + a + " and b is " + b);

    System.out.println(a == b);  // false

    System.out.println(a != b);  // true

    System.out.println(a > b);  // false

    System.out.println(a < b);  // true

    System.out.println(a >= b);  // false

    System.out.println(a <= b);  // true
```

```
  }
}
```

4. Write your own program using logical operators.

```
class Main {
  public static void main(String[] args) {

    // && operator
    System.out.println((5 > 3) && (8 > 5));  // true
    System.out.println((5 > 3) && (8 < 5));  // false

    // || operator
    System.out.println((5 < 3) || (8 > 5));  // true
    System.out.println((5 > 3) || (8 < 5));  // true
    System.out.println((5 < 3) || (8 < 5));  // false

    // ! operator
    System.out.println(!(5 == 3));  // true
    System.out.println(!(5 > 3));  // false
  }
}
```

5. Write a program to check age of student is greater than 18.

```
public class Main
{
public static void main(String[] args) {
int age;
Scanner sc = new Scanner(System.in);
System.out.println("Enter the year you want to check : ");
age = sc.nextInt();
//check voting eligibility
```

```
int (age>=18)
{
System.out.println("person is eligible for voting");
}
else
{
System.out.println("person is not eligibal for voting\n");
}
}
}
```

6. Write a program to check number is even or odd.

```
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {

        Scanner reader = new Scanner(System.in);

        System.out.print("Enter a number: ");
        int num = reader.nextInt();

        int(num%2 == 0){
            System.out.println(num + " is even");
        }else{
            System.out.println(num + " is odd");
        }
    }
}
```

Output:

```
Enter a number: 8
8 is even
```

7. write a program to check whether number is greater than 100 and 200.

```
import java.util.*;
class Question
{
static void main()
{
Scanner sc=new Scanner(System.in);
int n;
System.out.println("Enter an integer:");
n=sc.nextInt();
int(n>100)
System.out.println("Greater than 100");
else if(n<200)
System.out.println("Less than 200");
else
System.out.println("Equal to 100");
}
}
```

8. write a program to check whether both numbers are same or not

```
import java.io.*;
class GFG {
```

```
    public static void main(String[] args)
    {
        int firstNumber = 15;
        int secondNumber = 15;
        int ((firstNumber - secondNumber) == 0)
            System.out.println("Numbers are equal");
        else
            System.out.println("Numbers are not equal");
    }
}
```

**Output:**

Numbers are equal.