1. Write your own program using arthmetic operators.

Code:

```java
import java.util.Scanner;
public class AirthmeticOperatorProgram {
public static void main(String[] args) {
// TODO Auto-generated method stub
//Program for airthmetic calculation i.e. +,-,*,/,%
int a,b;
Scanner scanner=new Scanner(System.in);
System.out.println("Enter the first number: ");
a=scanner.nextInt();
System.out.println("Enter the second number: ");
b=scanner.nextInt();

int add=a+b;
System.out.println("Addition of entered number: "+add);

int sub=a-b;
System.out.println("Subtraction of entered number: "+sub);

int mul=a*b;
System.out.println("Multiplication of entered number: "+mul);

float div=a/b;
System.out.println("Division of entered number: "+div);

int mod=a%b;
System.out.println("Modulus of entered number: "+mod);
}
```

}

2. Write your own program using arthmetic assignment operators.

Code:

```java
import java.util.Scanner;

public class ArthmeticAssignmentOperator {

public static void main(String[] args) {

// TODO Auto-generated method stub

//own program using Arithmetic asignment operators i.e. =,+=,-=,/=,*=

int a;

Scanner scanner=new Scanner(System.in);


System.out.println("Enter the number to perform the operation: ");

a=scanner.nextInt();


a=a;

System.out.println("Result for a=a :"+a);


a+=a;

System.out.println("Result for a+=a:"+a);


a-=a;

System.out.println("Result for a-=a :"+a);


a/=a;

System.out.println("Result for a/=a :"+a);


a*=a;

System.out.println("Result for a*=a :"+a);

}

}
```

3. Write your own program using relational operators.

Code:

```java
import java.util.Scanner;
public class ArthmeticRelationalOperator {
public static void main(String[] args) {
// TODO Auto-generated method stub
//Program fro arthmetic elational operator i.e. ==,<,>,<=,>=,!=
int a,b;
Scanner scanner=new Scanner(System.in);

System.out.println("Enter the numbers to perform the operations");
System.out.println("enter the first number: ");
a=scanner.nextInt();
System.out.println("Enter the second number: ");
b=scanner.nextInt();

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));

System.out.println(a+"!="+b+":"+(a!=b));
}
}
```

4. Write your own program using logical operators.

Code:

```java
import java.util.Scanner;
public class LogicalOperatorProgram {
public static void main(String[] args) {
// TODO Auto-generated method stub
//Program for logical operators i.e. &&,||,!
Scanner scanner=new Scanner(System.in);
int a,b,c,caseno;
System.out.println("Enter the first number");
a=scanner.nextInt();
System.out.println("Enter the second number");
b=scanner.nextInt();
System.out.println("Enter the third number");
c=scanner.nextInt();
System.out.println("The result for a>b && a>c is: "+(a>b && a>c));


System.out.println("The result for a>b || a>c is: "+(a>b || a>c));


System.out.println("The result for !(a>b) is: "+!(a>b));


System.out.println("The result for !(a>c) is: "+!(a>c));
}
}
```

5. Write your own program to show the use of assignment operator.

Code:

```java
import java.util.Scanner;
public class UseOfAssignmentOperator {
public static void main(String[] args) {
// TODO Auto-generated method stub
```

```java
//use of Arithmetic asignment operators i.e. =,+=,-=,/=,*=
int a,b; //decraring the variable
Scanner scanner=new Scanner(System.in);
System.out.println("Enter the two number to perform the operation: ");
System.out.println("Enter the first number: ");
a=scanner.nextInt();
System.out.println("Enter the second number: ");
b=scanner.nextInt();
a=b;
System.out.println("Result fo a=b :"+a);


a+=b;
System.out.println("Result for a+=b:"+a);


a-=b;
System.out.println("Result for a-=b :"+a);


a/=b;
System.out.println("Result for a/=b :"+a);


a*=b;
System.out.println("Result for a*=b :"+a);
}
}
```

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

Code:

```java
import java.util.Scanner;
public class AgeGreaterThenEighteen {
public static void main(String[] args) {
// TODO Auto-generated method stub
```

```java
// Program to check the age of thr student should be greater then 18

int age;

Scanner scanner=new Scanner(System.in);

System.out.println("Enter the age of the student: ");

age=scanner.nextInt();

if(age>18)

{

System.out.println("Age is greater then 18 which is "+age);

}

else if(age==18)

{

System.out.println("Age is equal to 18 which is ");

}

else

{

System.out.println("Age is greater less 18 which is "+age);

}

}

}
```

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

Code:

```java
import java.util.Scanner;

public class NumberIsEvenOdd {

public static void main(String[] args) {

// TODO Auto-generated method stub

//Program to check the number is even or odd

int num;

Scanner scanner=new Scanner(System.in);

System.out.println("Enter the number: ");

num=scanner.nextInt();
```

```java
if(num%2==0) {

System.out.println("Number is even");

}

else {

System.out.println("Number is odd");

}

}

}
```

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

Code:

```java
import java.util.Scanner;

public class GreaterThenHundredTwoHundred {

public static void main(String[] args) {

// TODO Auto-generated method stub

//Program to check the number is greater then 100 and 200

int num;

Scanner scanner=new Scanner(System.in);

System.out.println("Enter the number: ");

num=scanner.nextInt();

if(num>100 && num>200) {

System.out.println("Number is greater then 100 and 200");

}

else {

System.out.println("Number is less then 100 and 200");

}

}

}
```

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

Code:

```java
import java.util.Scanner;

public class NumberSameOrNot {

public static void main(String[] args) {

// TODO Auto-generated method stub

//Program to check weather entered numbers are same or not

int num1,num2;

Scanner scanner=new Scanner(System.in);

System.out.println("Enter first number: ");

num1=scanner.nextInt();

System.out.println("Enter second number: ");

num2=scanner.nextInt();

if(num1==num2) {

System.out.println("Entered numbers are same");

}

else {

System.out.println("Numbers are not same");

}

}

}
```