1)Write your own program using arthmetic operators?

```
public class Addition {

	public static void main(String[] args) {
		// initializing variables
		int num1 = 10, num2 = 20, sum = 0;

		// Displaying num1 and num2
		System.out.println("num1 = " + num1);
		System.out.println("num2 = " + num2);

		// adding num1 and num2
		sum = num1 + num2;
		System.out.println("The sum = " + sum);
	}
}
```

2)Write your own program using arthmetic assignment operators?

```
public class Assignment
{
   public static void main(String args[])
   {
      int a=123;
      System.out.println(a);
      a+=10;
      System.out.println(a);
      a-=10;//a=a-10
      System.out.println(a);
```

```
        a*=10;
        System.out.println(a);
        a/=10;
        System.out.println(a);
        a%=10;
        System.out.println(a);
    }
}
```

3)Write your own program using relational operators?

```
 public static void main(String[] args)
    {
        // Initializing variables
        int var1 = 5, var2 = 10, var3 = 5;

        // Displaying var1, var2, var3
        System.out.println("Var1 = " + var1);
        System.out.println("Var2 = " + var2);
        System.out.println("Var3 = " + var3);

        // Comparing var1 and var2 and
        // printing corresponding boolean value
        System.out.println("var1 == var2: "
                           + (var1 == var2));

        // Comparing var1 and var3 and
        // printing corresponding boolean value
        System.out.println("var1 == var3: "
```

```
                    + (var1 == var3));
    }
}
```

4)Write your own program using logical operators.

```
 public static void main(String[] args)
    {
        // initializing variables
        int a = 10, b = 20, c = 20, d = 0;

        // Displaying a, b, c
        System.out.println("Var1 = " + a);
        System.out.println("Var2 = " + b);
        System.out.println("Var3 = " + c);

        // using logical AND to verify
        // two constraints
        if ((a < b) && (b == c)) {
            d = a + b + c;
            System.out.println("The sum is: " + d);
        }
        else
            System.out.println("False conditions");
    }
}
```

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

```
public static void main(String[] args)
 {
   int x = 20, y = 30, z = 50;
    x += y;
    y -= x + z;
    z *= x * y;
 System.out.println("x = " +x );
 System.out.println("y = " +y );
 System.out.println("z = " +z );
 }
}
```

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

```
public static void main(String[] args) {
int number;
String result;
Scanner obj = new Scanner(System.in);
System.out.println(" Enter the number");
number = obj.nextInt();
result = (number % 2 == 0) ? " It is a even number" : " It is a odd number";
System.out.println(result);
}
}
```

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

```
public static void main(String[] args) {
int number;
String result;
Scanner obj = new Scanner(System.in);
System.out.println("Enter the number ");
number = obj.nextInt();
result = ((number > 100) && (number > 200)) ? " the number is greater than 100 and 200": "
the number is not greater than 100 and 200";
System.out.println(result);
}
}
```

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

```
public static void main(String[] args) {
int number1;
int number2;
String result;
Scanner obj = new Scanner(System.in);
System.out.println(" Enter the number 1");
number1 = obj.nextInt();
System.out.println(" Enter the number 2");
number2 = obj.nextInt();
result = (number1 == number2) ? " both numbers are same" : " both numbers are not same";
System.out.println(result);
}
}
```