```
public static void main() {
        boolean bbb;
        String str;
        int x;
        int a;

        bbb = false;
        str = "HALLO WELT";
        addi = 4211;

        ifTest();

        print("fak(5)=)");
        print(factorial(5));
        print("\n");

        print(" x = 199 + 42 / 10");
        x = 199 + 42 / 10;
        print(x);
        print("\n");

        test(-1,-2,-3,-4,-5,-6,-7,-8,-9,-10);
        print("\n");

        x = 1000;
        print(x);
        if(x >= 1000){
            print("x ist groeser gleich 1000");
        }else{
            print("x ist kleiner 10000");
        }
        print("\n");

        print("Erwarte 100");
        x = 42 / 42 + (x - 1000) + 100 * 1 - 1;
        print(x);

        print("\n");
        boolTester();
        print("\n");

        print("addi=");
        print(addi);
        print("bbb=");
        print(bbb);
        print("str=");
        print(str);
        print("x=");
        print(x);

        print("\n");

        print("whileggt(24,16)");
        print(whileggt(24,16));
        }
}
```

```
Not Assigned
false
true
x kleiner y
x nicht groeser y
x ungleich y
fak(5)=)
120

 x = 199 + 42 / 10
203

Erwarte 55
55
Erwarte -55
-55
Erwarte 0
0

1000
x ist groeser gleich 1000

Erwarte 100
100

Verschiedene Strings vergleich
false
Vergleiche Strings identisch aber Adresse nicht gleich
hallo
hallo
false
Weise String gleiche Adresse zu
true
addi=
4211
bbb=
false
str=
HALLO WELT
x=
100

whileggt(24,16)
8
```

```
public class Hello {
    static boolean bool;
    static String staticString;
    //Name gleich Assembler befehl
    static int addi;

    public static int factorial(int n) {

        if ( n == 1) {
            return n;
        }
                // Rekursiver Fall: n * Fakultät von (n-1)
                return   n * factorial(n - 1) ;
    }
```

```
public static void boolTester(){

        String str;
        bool = true;
        str = "hallo";
        staticString = "welt";

        //Vergleiche verschiedene Strings
        print("Verschiedene Strings vergleich");
        print(str == staticString);

        print("Vergleiche Strings identisch aber Adresse nicht gleich");
        staticString = "hallo";
        print(staticString);
        print(str);
        print(str == staticString);

        print("Weise String gleiche Adresse zu");
        str = staticString;
        print(str == staticString);
    }
```

```
public static void ifTest(){
        int x;
        boolean notassigned;
        int y;
        boolean b;
        b = true;
        x = 10;
        y = 100;

        print("Not Assigned");
        print(notassigned);
        print(notassigned == !b);
        if(x < y){
            print("x kleiner y");
        }

        if(x > y){
         print("ERROR");
        }else{
            print("x nicht groeser y");
            if(x==y){
                print("ERROR");
            }else{
                print("x ungleich y");
                return;
            }
        }
        print("ERROR RETURN VORHER");
    }
```

```
 public static int whileggt(int a, int b){
                int temp;

                do {
                        temp = a;
                        a = b;
                        b = temp - ( temp / b ) * b;
                } while(b != 0)
                return a;
        }
```

```
//Funktion mit vielen Parametern und lokalen Variablen
 public static void test(int aa,int bb, int cc , int dd, int ee,int ff,int gg,int hh,int ii,int jj){
  int a;
  int b;
  int c;
  int d;
  int e;
  int f;
  int g;
  int h;
  int i;
  int j;
  a = 1;
  b = 2;
  c = 3;
  d = 4;
  e = 5;
  f = 6;
  g = 7;
  h = 8;
  i = 9;
  j = 10;
  print("Erwarte 55");
  print(a + b +c +d + e +f +g + h +i +j);
  print("Erwarte -55");
  print(aa + bb + cc + dd + ee + ff + gg + hh + ii + jj);
  print("Erwarte 0");
  print(a + aa + (b + bb + (c + cc + d + (dd + (e + ee) + f) + (ff + g + gg) + hh) + h + ii + i) + jj + j);
 }
```