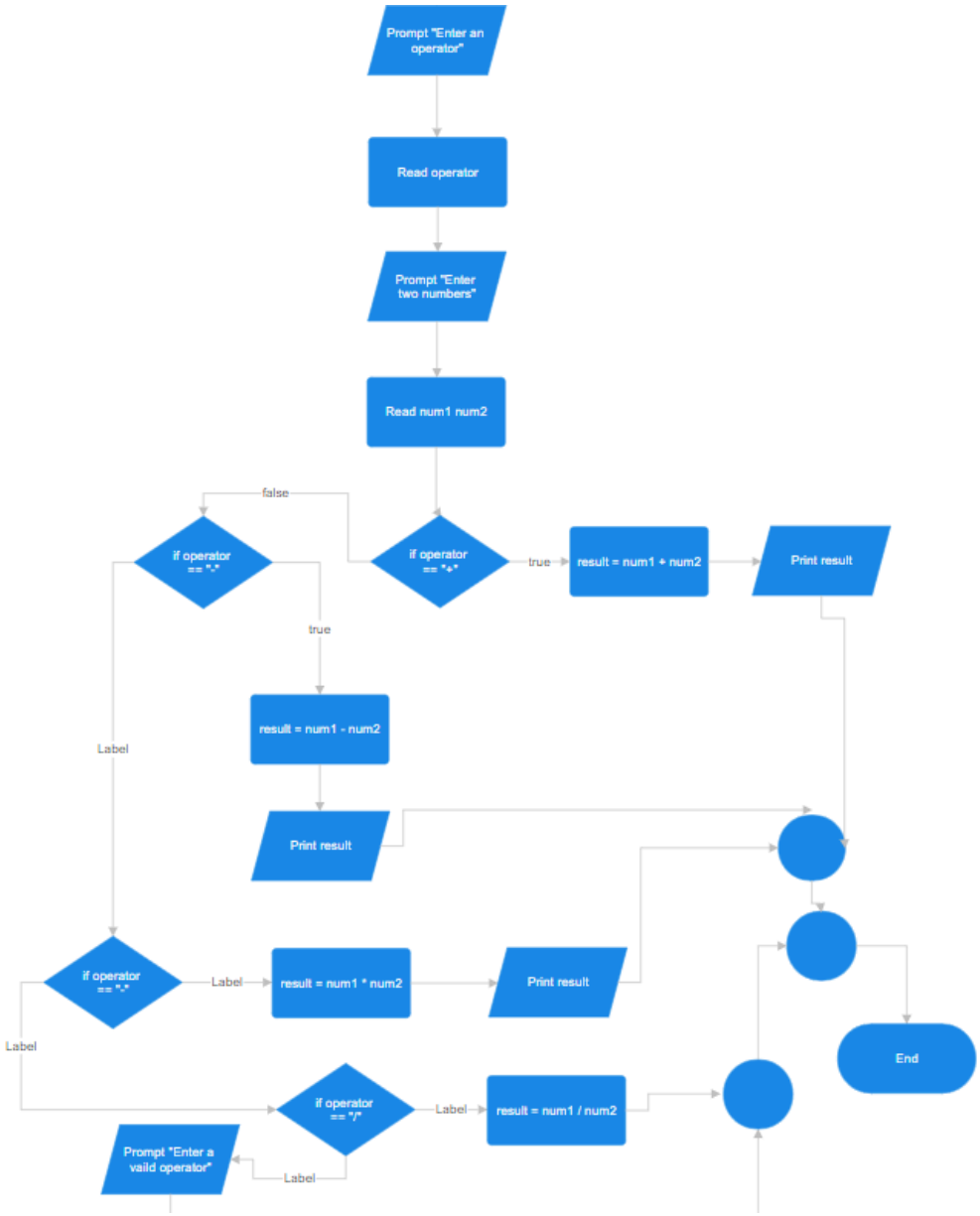
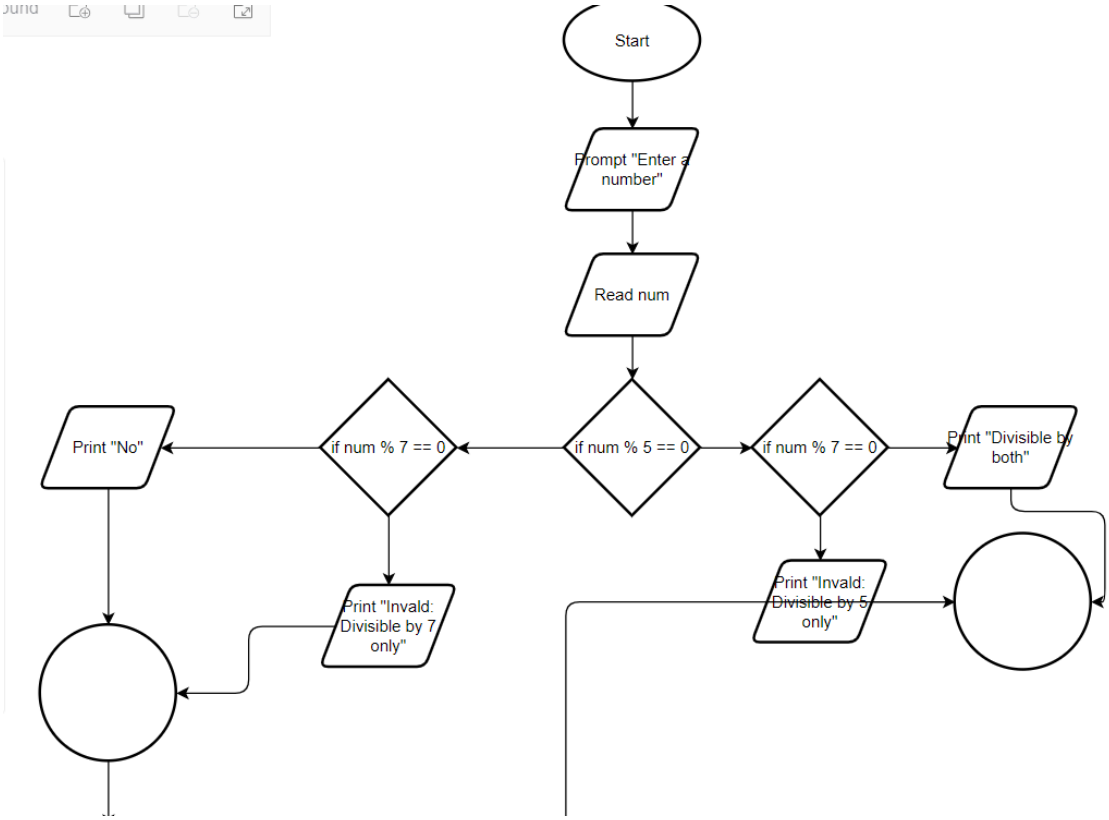
Homework 1




```
import java.util.Scanner;

public class Homework1 {

  public static void main(String[] args) {

    Scanner input = new Scanner(System.in);

    System.out.println("Enter an operator( +, -, *, / )");
```

```
    String operator = input.nextLine();

    System.out.println("Enter two integers ");

    int num1 = input.nextInt();
    int num2 = input.nextInt();
    int result;
    input.close();



    if (operator.equals("+")) {

      result = num1 + num2;
      System.out.println(result);
    }

    else if (operator.equals("-")) {

      result = num1 - num2;
      System.out.println(result);
    }

    else if (operator.equals("*")) {

      result = num1 * num2;
      System.out.println(result);
    }

    else if (operator.equals("/")) {

      result = num1 / num2;
      System.out.println(result);
    }

    else {

      System.out.println("Please enter a valid operator");
    }
  }
}
```

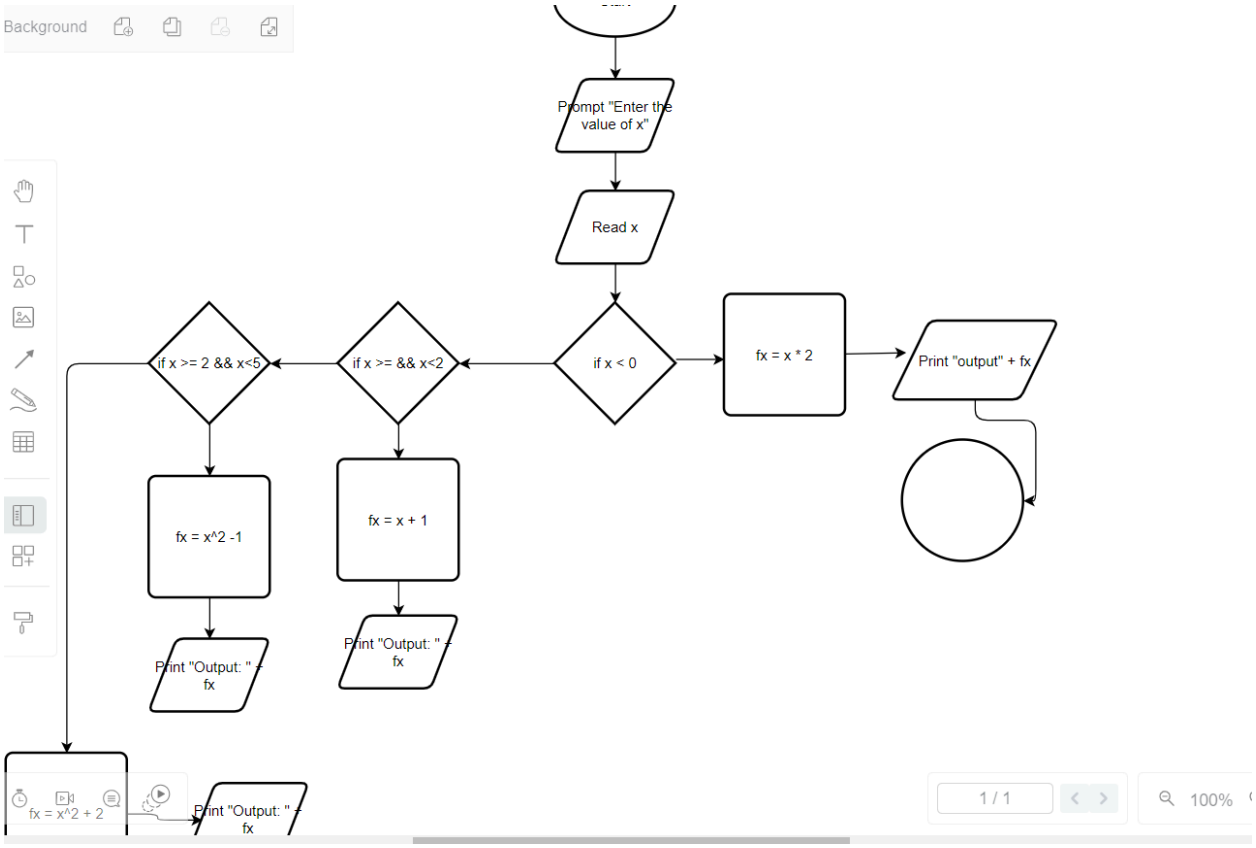
Homework 2




```
import java.util.Scanner;

public class Homework2 {

  public static void main(String[] args) {

    Scanner input = new Scanner(System.in);
    System.out.println("Please enter a number");
    int num = input.nextInt();

    if (num % 5 == 0) {

      if (num % 7 == 0) {

        System.out.println("Divisible by both");
      }
      else {

        System.out.println("Invald: Divisible by 5 only");
```

```
    }
   }

   else if (num % 7 == 0) {

    System.out.println("Invalid: Divisible by 7 only");
   }
   else {

    System.out.println("No");
   }
  }
}
```

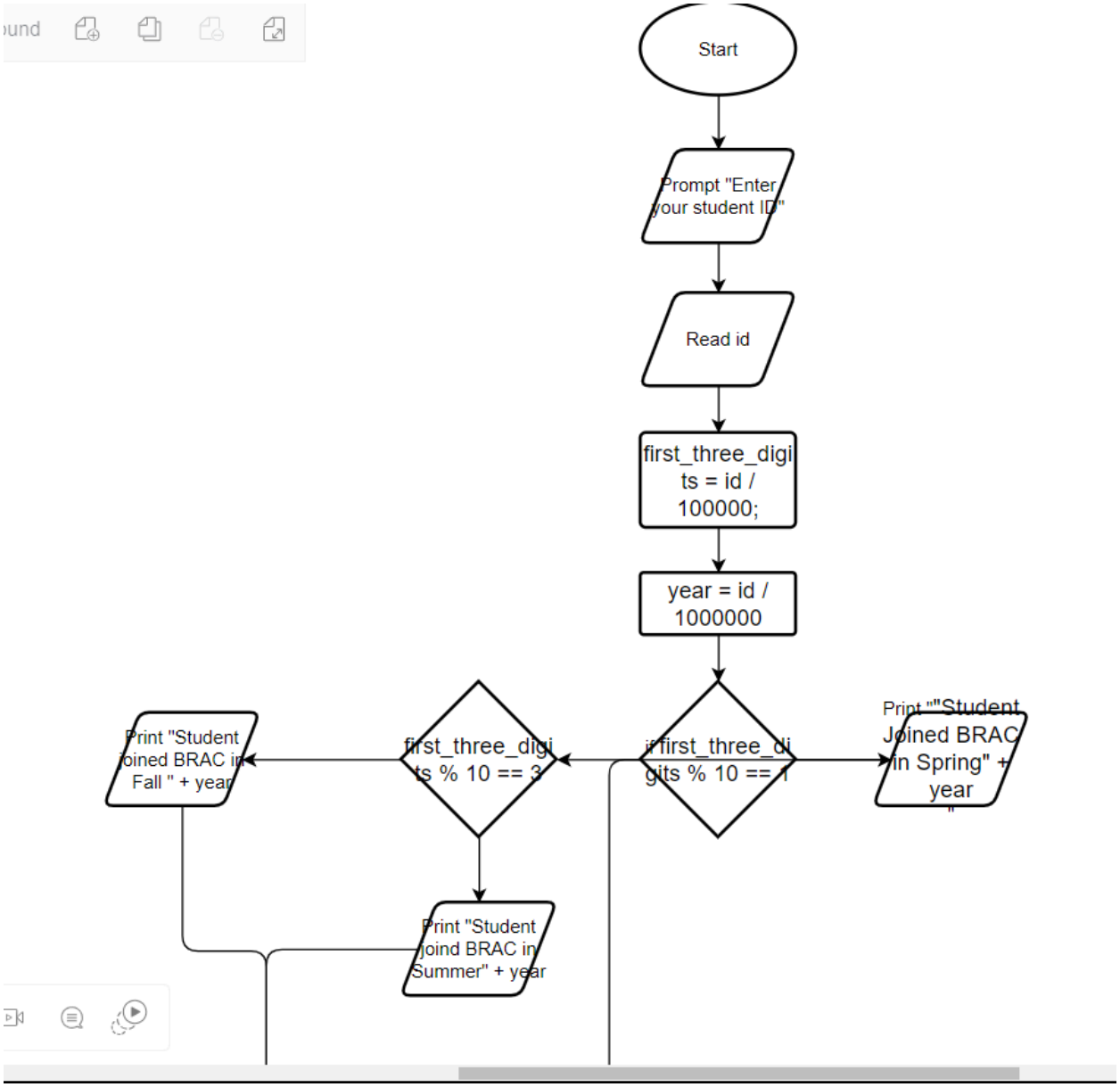
Homework 3




```
import java.util.Scanner;

public class Homework3 {
```

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

    Scanner input = new Scanner(System.in);
    int x = input.nextInt();
    int fx;

    if (x < 0) {

      fx = x * 2;
      System.out.println("output: " + fx);
    }

    else if (x >= 0 && x < 2) {

      fx = x + 1;
      System.out.println("output: " + fx);
    }
    else if (x >= 2 && x < 5) {

      fx = (int)Math.pow(x, 2) - 1;
      System.out.println("output: " + fx);
    }
    else {

      fx = 3 * (int)Math.pow(x, 2) + 2;
      System.out.println("output: " + fx);
    }
  }
}
```

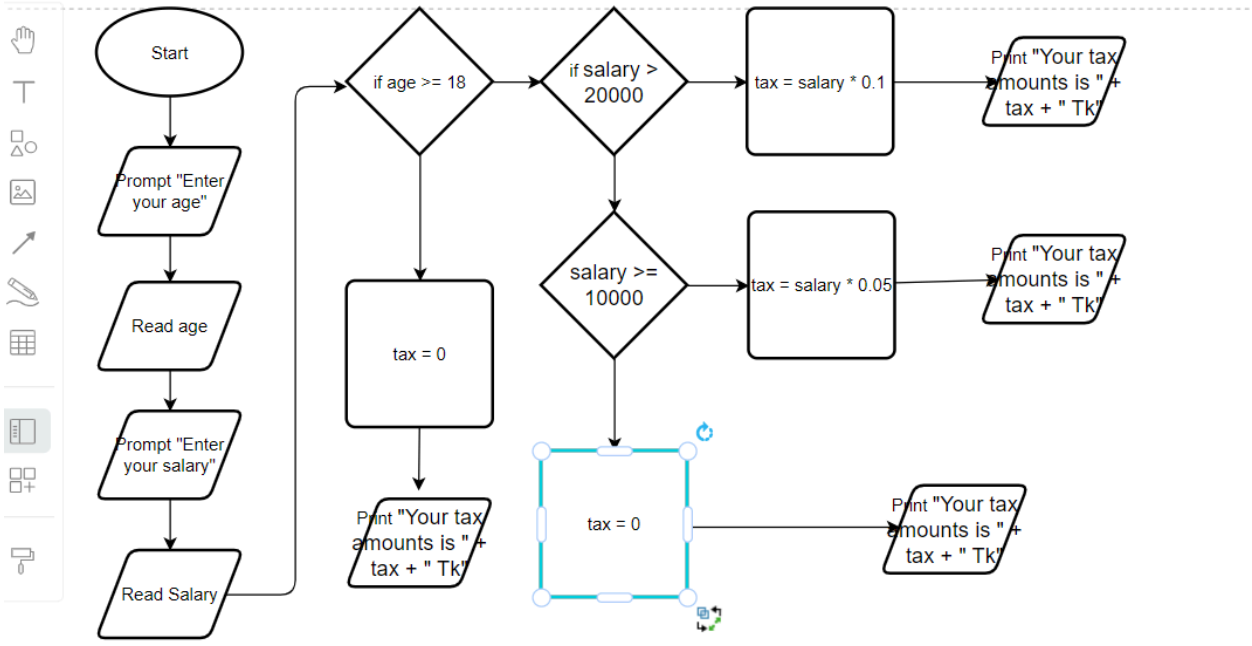
Homework 4




```
import java.util.Scanner;

public class Homework4 {

  public static void main(String[] args) {

    Scanner input = new Scanner(System.in);
    System.out.println("Enter your student ID");
    int id = input.nextInt();
    int first_three_digits = id / 100000;
    int year = id / 1000000;
    String session;
```

```
    input.close();


    if ( first_three_digits % 10 == 1) {

      session = "Spring ";
      System.out.println("Student Joined BRAC in " + session + year);
    }
    else if ( first_three_digits % 10 == 3) {

      session = "Summer ";
      System.out.println("Student Joined BRAC in " + session + year);
    }
    else {

      session = "Fall ";
      System.out.println("Student Joined BRAC in " + session + year);
    }
  }
}
```

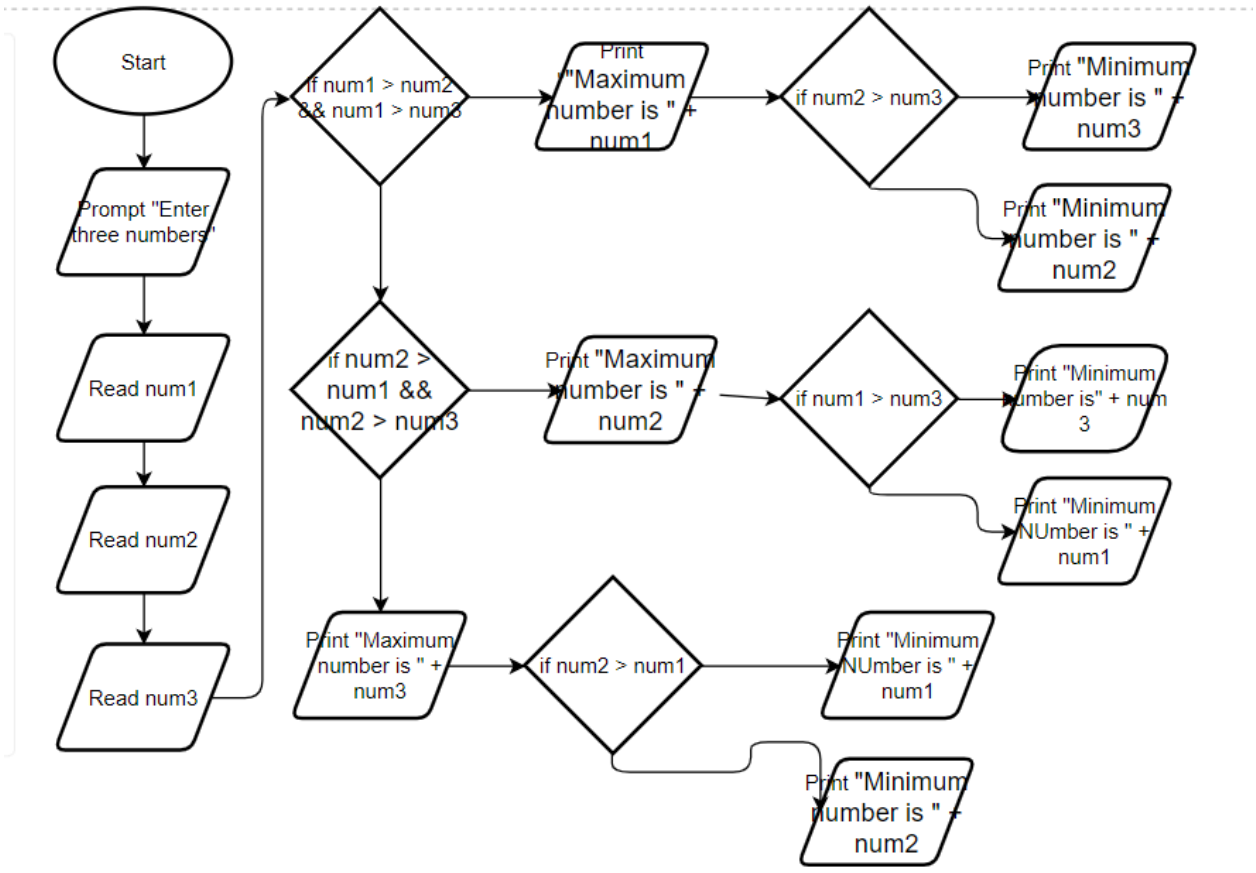
Homework 5




```
import java.util.Scanner;

public class Homework5 {

  public static void main(String[] args) {

    Scanner input = new Scanner(System.in);

    System.out.println("Enter your age");
    int age = input.nextInt();
    System.out.println("Enter your salary");
    int salary = input.nextInt();
    int tax;
    input.close();

    if (age >= 18) {

      if (salary > 20000) {

        tax = (int)(salary * 0.1f);
        System.out.println("Your tax amounts is " + tax + " Tk");
      }
      else if (salary >= 10000) {
```

```
        tax = (int)(salary * 0.05f);
        System.out.println("Your tax amounts is " + tax + " Tk");
      }
      else {

        tax = 0;
        System.out.println("Your tax amounts is " + tax + " Tk");
      }
    }
    else {

      tax = 0;
      System.out.println("Your tax amounts is " + tax + " Tk");
    }
  }
}
```

Homework 6




```
import java.util.Scanner;

public class Homework6 {

  public static void main(String[] args) {

    Scanner input = new Scanner(System.in);
    System.out.println("Enter three numbers");
    float num1 = input.nextFloat();
    float num2 = input.nextFloat();
    float num3 = input.nextFloat();

    if (num1 > num2 && num1 > num3){

      System.out.println("Maximum number is " + num1);
      if (num2 > num3) {

        System.out.println("Minimum number is " + num3);
```

```
      }
      else {

        System.out.println("Minimum number is " + num2);
      }

    }
    else if (num2 > num1 && num2 > num3) {

      System.out.println("Maximum number is " + num2);
      if (num1 > num3) {

        System.out.println("Minimum number is " + num3);
      }
      else {

        System.out.println("Minimum number is " + num1);
      }
    }
    else {

      System.out.println("Maximum number is " + num3);
      if (num2 > num1) {

        System.out.println("Minimum number is " + num1);
      }
      else {

        System.out.println("Minimum number is " + num2);
      }
  }
}
}
```

Homework 7

```
        import java.util.Scanner;

public class Homework7 {

  public static void main(String[] args) {

    Scanner input = new Scanner(System.in);
```

```
    int totalBill = input.nextInt();
    int paidAmount = input.nextInt();
    int returnAmount, extraMoney, note100, note50, note20, note10, coin5, coin2, coin1;

    if( paidAmount > totalBill ) {

      returnAmount = paidAmount - totalBill;
      note100 = returnAmount / 100;
      note50 = (returnAmount % 100) / 50;
      note20 = (returnAmount % 50) / 20;
      note10 = (returnAmount % 20) / 10;
      coin5 = (returnAmount % 10) / 5;
      coin2 = (returnAmount % 5) / 2;
      coin1 = (totalBill % 2) / 1;

      System.out.println("The returned amount is " + returnAmount + " taka.");
      System.out.println("100 taka note: " + note100);
      System.out.println("50 taka note: " + note50);
      System.out.println("20 taka note: " + note20);
      System.out.println("10 taka note: " + note10);
      System.out.println("5 taka coin: " + coin5);
      System.out.println("2 taka coin: " + coin2);
      System.out.println("1 taka coin: " + coin1);
    }

    else if( paidAmount < totalBill) {

      returnAmount = totalBill - paidAmount;
      System.out.println("Please pay " + returnAmount + " taka more.");
    }

    else {

      returnAmount = 0;
      System.out.println("The returned amount is " + returnAmount + " taka.");
    }
  }
}
```

Homework 8

```
    import java.util.Scanner;
```

```
public class Homework8 {

  public static void main(String[] args) {

    Scanner input = new Scanner(System.in);
    System.out.print("Input the 1st number: ");
    int num1 = input.nextInt();

    System.out.print("\n Input the 2nd number: ");
    int num2 = input.nextInt();

    System.out.print("\n Input the 3rd number: ");
    int num3 = input.nextInt();

    if( num1 == num2 && num2 == num3) {

      System.out.println("All numbers are equal");
    }
    else if(num1 != num2 && num2 != num3) {

      System.out.println("All numbers are different");
    }
    else {

      System.out.println("Neither all are equal or different");
    }
  }
}
```