1. Check Positive Number:

 Task: Create a flowchart to check whether a number is positive.

 Next Step: Write a Java program that checks if a predefined number is positive using an if-else statement and prints the appropriate message.

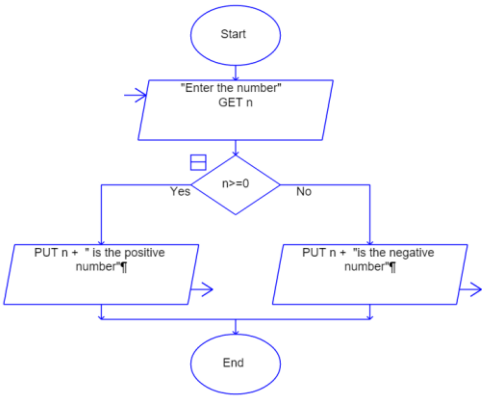
Input:

```
class Positive{
   public static void main(String args[]) {
      int a=10 ;
      if(a=>0)
         {
               System.out.println(a+ " is positive number");
         }
         else
         {
               System.out.println(a+ " is negative number");
         }
   }
}
```

Output:

```
D:\cdac\PG-DAC\assignment\Day 2\Assignment 1\program>javac Positive.java

D:\cdac\PG-DAC\assignment\Day 2\Assignment 1\program>java Positive
10 is positive number
```

Flowchart:



2. Check Negative Number:

 Task: Create a flowchart to check whether a number is negative.

 Next Step: Write a Java program that checks if a predefined number is negative using an if-else statement and displays the result.

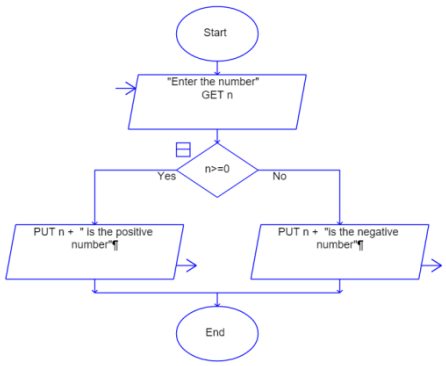
Input:

```
class Positive{
   public static void main(String args[]) {
      int a=10 ;
      if(a=>0)
         {
                  System.out.println(a+ " is positive number");
         }
         else
         {
                  System.out.println(a+ " is negative number");
         }
   }
}
```

Output:

```
D:\cdac\PG-DAC\assignment\Day 2\Assignment 1\program>java Negative
-10 is negative number

D:\cdac\PG-DAC\assignment\Day 2\Assignment 1\program>
```

Flowchart:



3. Check Odd or Even Number:

 Task: Create a flowchart to determine whether a number is odd or even.

 Next Step: Write a Java program that checks if a predefined number is odd or even. Use an if-else statement and the modulus operator (%) to determine whether the number is divisible by 2 or not.

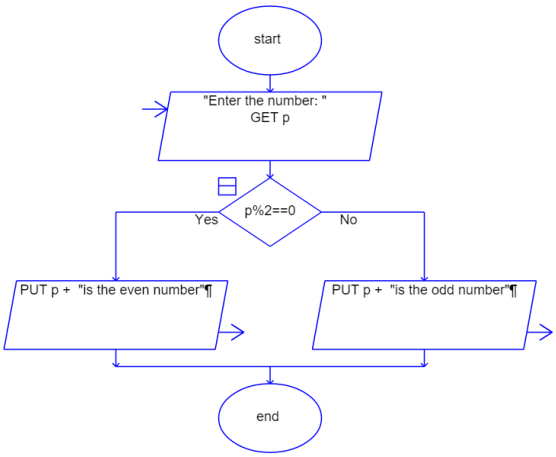
Input:

```
import java.util.Scanner;


class Even{
   public static void main(String args[]) {
      Scanner input = new Scanner(System.in);
      System.out.println("Enter the number :");
      int n = input.nextInt();
         if(n%2 == 0){
                  System.out.println(n+" is even number");
         }
         else{
                  System.out.println(n+" is odd number");
         }
   }
}
```

Output:

```
D:\cdac\PG-DAC\assignment\Day 2\Assignment 1\program>javac Even.java

D:\cdac\PG-DAC\assignment\Day 2\Assignment 1\program>java Even
Enter the number :
24
24 is even number
```

Flowchart:



4. Display Good Morning Message Based on Time:

 Task: Create a flowchart to display a "Good Morning" message based on a given time.

 Next Step: Write a Java program that displays a "Good Morning" message if the predefined time is between 5 AM and 12 PM. Use an if statement to implement the logic.

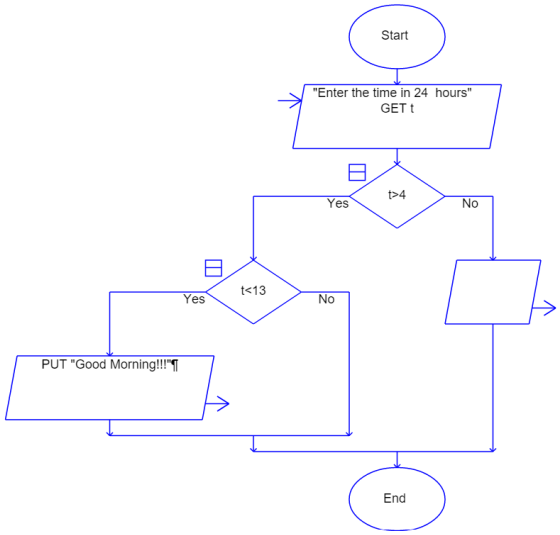
Input:

```
import java.util.Scanner;
class Morning {
   public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
      System.out.println("Enter the time in 24 hourls format in hour :");
      int hour = input.nextInt();
        if (hour >= 5 && hour < 12)
        {
        System.out.println("Good Morning!");
      }
   }
}
```

Output:

```
D:\cdac\PG-DAC\assignment\Day 2\Assignment 1\program>javac Morning.java

D:\cdac\PG-DAC\assignment\Day 2\Assignment 1\program>java Morning
Enter the time in 24 hourls format in hour :
10
Good Morning!
```

Flowchart:



5. Print Area of a Square:

 Task: Create a flowchart to calculate and print the area of a square.

 Next Step: Write a Java program that calculates the area of a square using the formula area = side * side. Use a predefined side length.

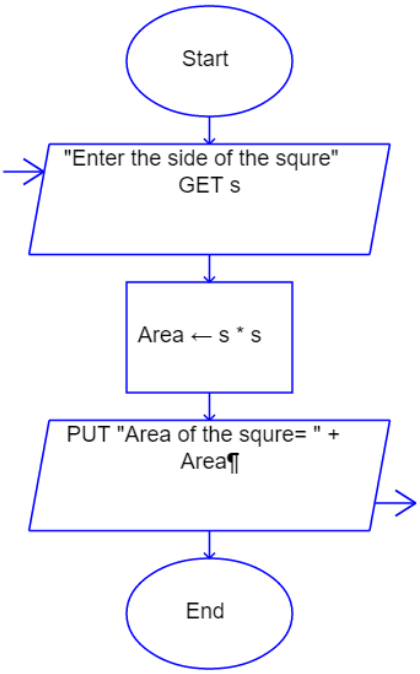
Input:

```
class Squre{
    public static void main(String args[]) {
        int Side = 20;
            double Area= Side*Side;
            System.out.println("Area of squre= "+Area);


    }
}
```

Output:

```
D:\cdac\PG-DAC\assignment\Day 2\Assignment 1\program>javac Squre.java

D:\cdac\PG-DAC\assignment\Day 2\Assignment 1\program>java Squre
Area of squre= 400.0
```

Flowchart:



6. Print Area of a Rectangle:

 Task: Create a flowchart to calculate and print the area of a rectangle.

 Next Step: Write a Java program that calculates the area of a rectangle using the formula area = length * width. Use predefined values for length and width.

Input:

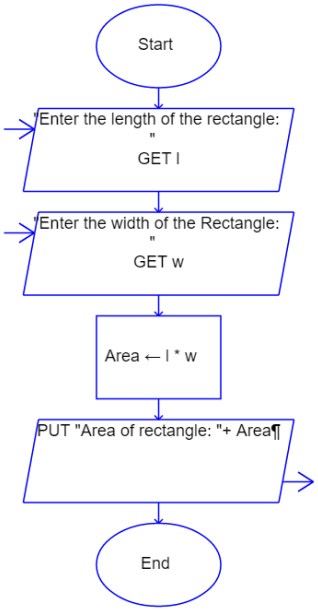
```
class Rectangle{
    public static void main(String args[]) {
        int length = 20;
            int width =30;
            double Area= length*width;
            System.out.println("Area of Rectagle= "+Area);
```

```
    }
}
```

Output:

```
D:\cdac\PG-DAC\assignment\Day 2\Assignment 1\program>javac Rectangle.java

D:\cdac\PG-DAC\assignment\Day 2\Assignment 1\program>java Rectangle
Area of Rectagle= 600.0
```

Flowchart:



7. Find the Largest of Three Numbers:

 Task: Create a flowchart to find the largest of three numbers.

 Next Step: Write a Java program that finds and prints the largest of three predefined numbers using if-else statements.

Input:

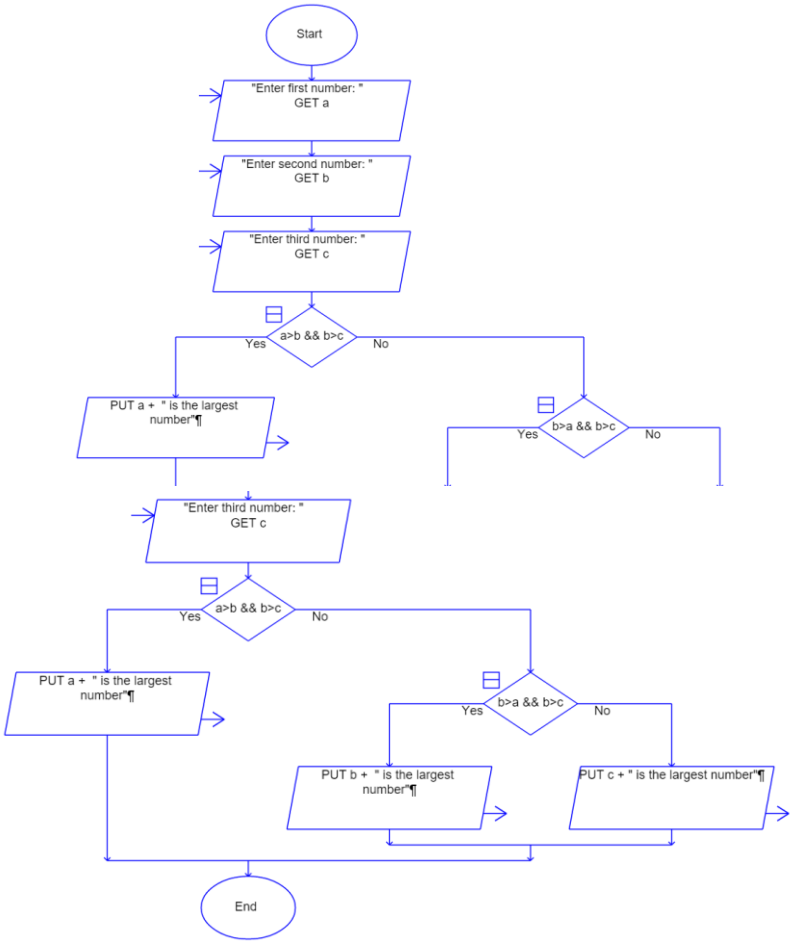
```
class Largest{
    public static void main(String args[]) {
        int a = 20;
            int b=30;
            int c=40;
            System.out.println("The three numbers are: "a+","+b+","+c)
```

```
        if(a>b && b>c)
        {
                System.out.println(a+ " Is the largest number");
        }
        else if(a<b && b>c)
        {
                System.out.println(b+ " Is the largest number");
        }
        else
        {
                System.out.println(c+ " Is the largest number");
        }
   }
}
```

Output:

```
D:\cdac\PG-DAC\assignment\Day 2\Assignment 1\program>javac Largest.java

D:\cdac\PG-DAC\assignment\Day 2\Assignment 1\program>java Largest
The three numbers are: 20,30,40
40 Is the largest number

D:\cdac\PG-DAC\assignment\Day 2\Assignment 1\program>
```

Flowchart:


Start
"Enter first number: "
GET a
"Enter second number: "
GET b
"Enter third number: "
GET c
a>b && b>c
Yes
No
PUT a + " is the largest number"¶
b>a && b>c
Yes
No
"Enter third number: "
GET c
a>b && b>c
Yes
No
PUT a + " is the largest number"¶
b>a && b>c
Yes
No
PUT b + " is the largest number"¶
PUT c + " is the largest number"¶
End