ANSWERS

Flowchart + Java Program Questions

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.
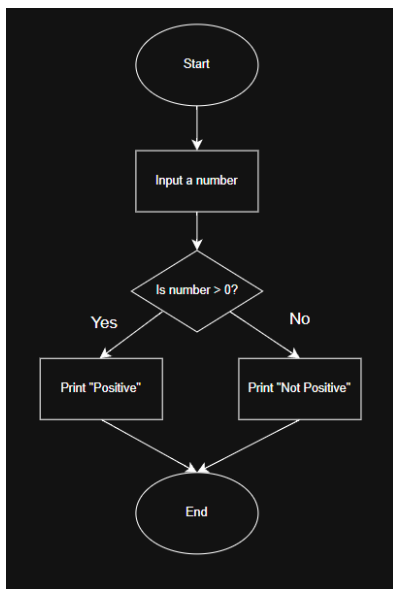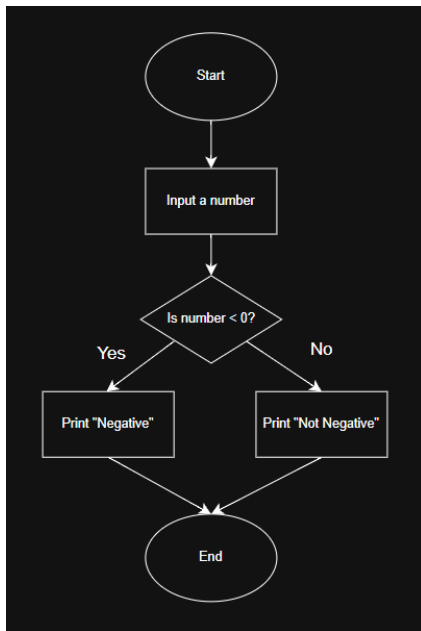


```java
public class PositiveCheck {
    Run | Debug
    public static void main(String[] args) {
        int number = 10;
        if (number > 0){
            System.out.println(number + " is a Positive number.");
        }
        else{
            System.out.println(number + " is NOT a Positive number.");
        }
    }
}
```

```
PS C:\Users\baenu\test> javac PositiveCheck.java
PS C:\Users\baenu\test> java PositiveCheck
10 is a Positive number.
PS C:\Users\baenu\test>
```

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.
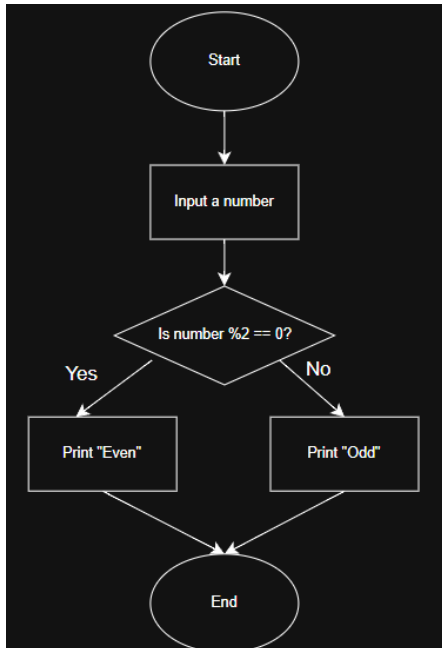


```java
public class NegativeCheck {
    Run | Debug
    public static void main(String[] args) {
        int number = -5;
        if (number < 0) {
            System.out.println(number + " is a Negative number.");
        } else {
            System.out.println(number + " is NOT a Negative number.");
        }
    }
}
```

```
PS C:\Users\baenu\test> javac NegativeCheck.java
PS C:\Users\baenu\test> java NegativeCheck
-5 is a Negative number.
```

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.


```java
public class OddEvenCheck {
    Run | Debug
    public static void main(String[] args) {
        int number = 7;
        if (number % 2 == 0) {
            System.out.println(number + " is an Even number.");
        } else {
            System.out.println(number + " is an Odd number.");
        }
    }
}
```

```
PS C:\Users\baenu\test> javac OddEvenCheck.java
PS C:\Users\baenu\test> java OddEvenCheck
7 is an Odd number.
```

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.
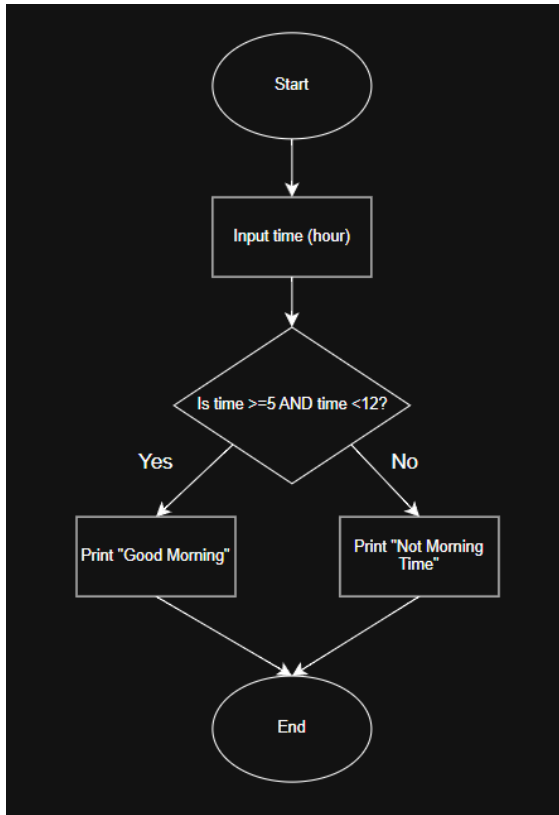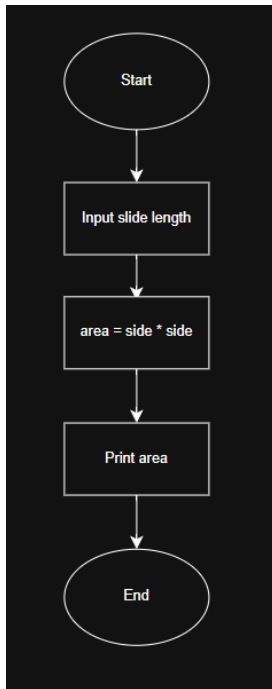


```java
public class GoodMorning {
    Run | Debug
    public static void main(String[] args) {
        int time = 9;

        if (time >= 5 && time < 12) {
            System.out.println(x:"Good Morning!");
        } else {
            System.out.println(x:"Not Morning Time.");
        }
    }
}
```

```
PS C:\Users\baenu\test> javac GoodMorning.java
PS C:\Users\baenu\test> java GoodMorning
Good Morning!
```

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.

```
Start
  │
  ▼
Input slide length
  │
  ▼
area = side * side
  │
  ▼
Print area
  │
  ▼
End
```
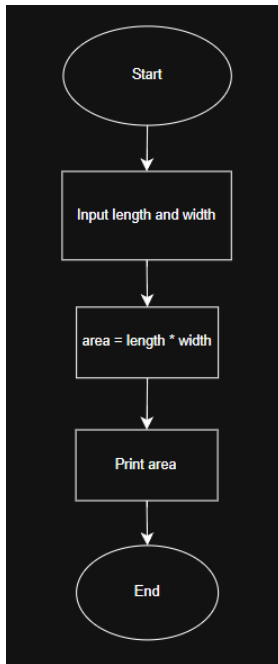
```java
public class SquareArea {
    Run | Debug
    public static void main(String[] args) {
        int side = 6;
        int area = side * side;
        System.out.println("Area of square = " + area);
    }
}
```

```
PS C:\Users\baenu\test> javac SquareArea.java
PS C:\Users\baenu\test> java SquareArea
Area of square = 36
```

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.



```java
public class RectangleArea {
    Run | Debug
    public static void main(String[] args) {
        int length = 8;
        int width = 5;
        int area = length * width;
        System.out.println("Area of rectangle = " + area);
    }
}
```

```
PS C:\Users\baenu\test> javac RectangleArea.java
PS C:\Users\baenu\test> java RectangleArea
Area of rectangle = 40
```

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.
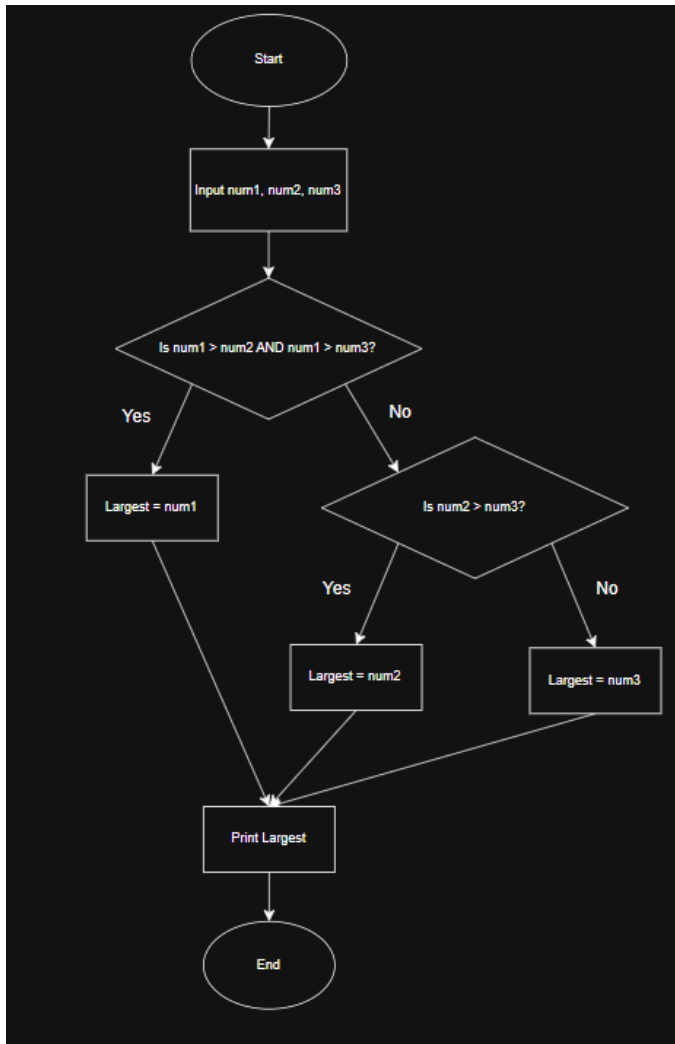

```java
public class LargestNumber {
    Run | Debug
    public static void main(String[] args) {
        int num1 = 25, num2 = 42, num3 = 30;
        int largest;

        if (num1 > num2 && num1 > num3) {
            largest = num1;
        } else if (num2 > num3) {
            largest = num2;
        } else {
            largest = num3;
        }

        System.out.println("The largest number is: " + largest);
    }
}
```

```
PS C:\Users\baenu\test> javac LargestNumber.java
PS C:\Users\baenu\test> java LargestNumber
The largest number is: 42
```