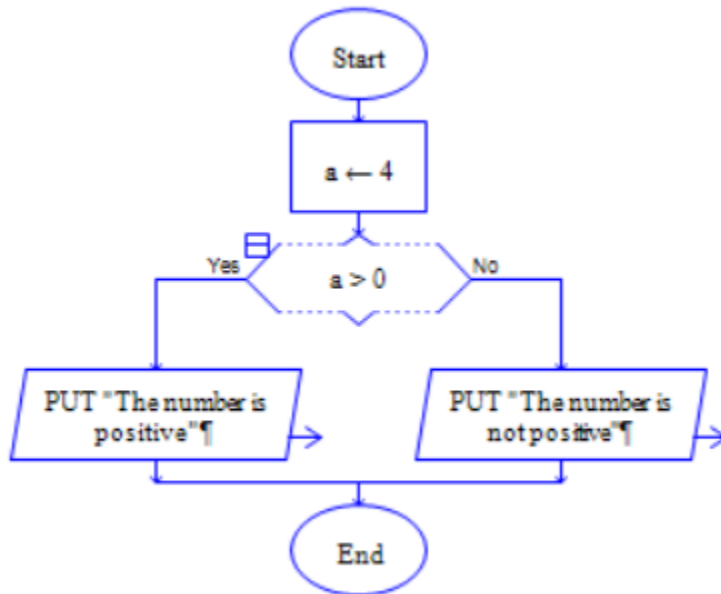


1) Write a Java program that checks if a predefined number is positive using an if-else statement and prints the appropriate message.

Ans:

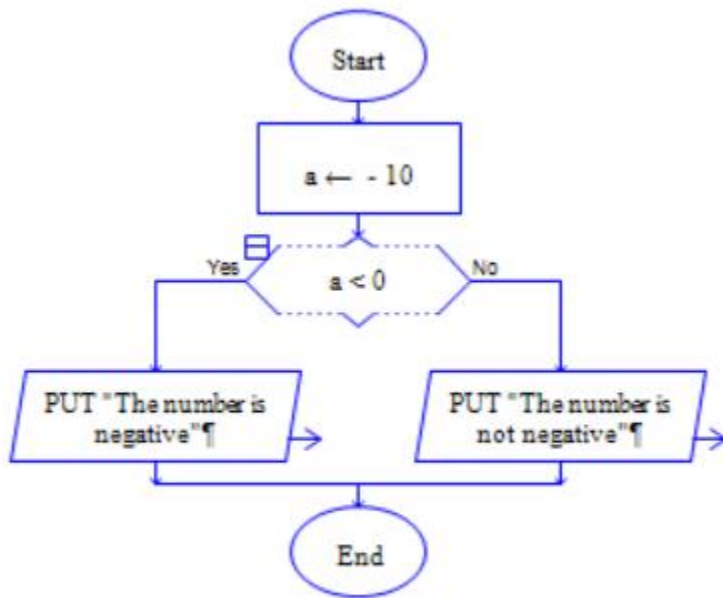


Algorithm:

1. Start
2. Define an integer variable n and assign it a value
3. Check if n is greater than 0:
 - If true print: n is a positive number.
 - If false print: n is not a positive number.
4. End

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

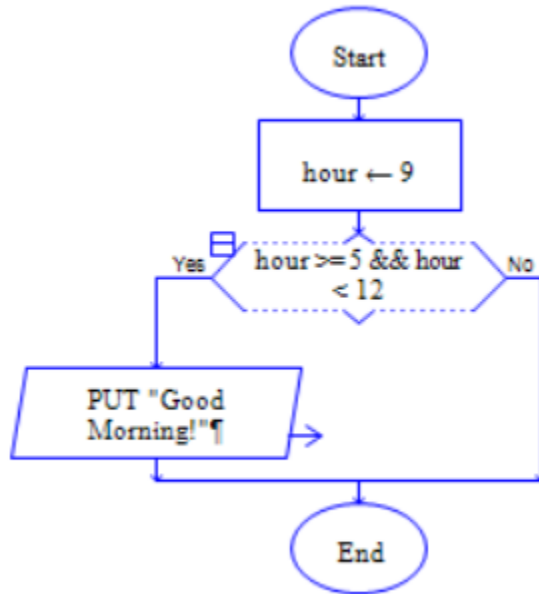
Ans:



Algorithm:

1. Start
2. Define an integer variable n and assign it a value.
3. Check if n is less than 0:
 - If true print: n is a negative number.
 - If false print: n is not a negative number.
4. End

4) 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.

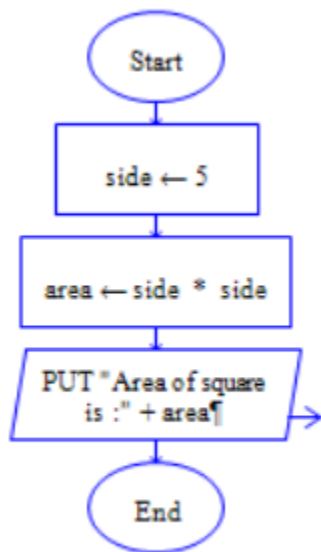


Algorithm:

1. Start
2. Define an integer variable hour and assign it a predefined value.
3. Check if hour is greater than or equal to 5 and less than 12:
 - If true print: Good Morning!
4. End

5) Write a Java program that calculates the area of a square using the formula $\text{area} = \text{side} * \text{side}$. Use a predefined side length.

Ans.

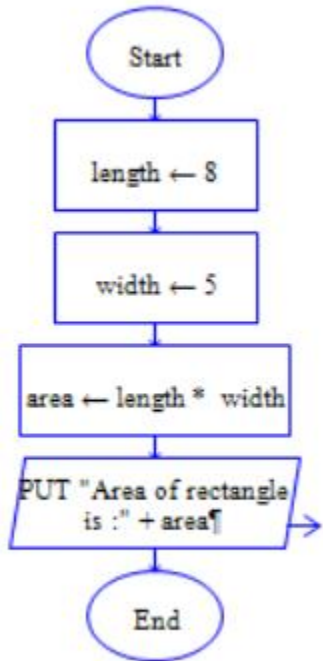


Algorithm:

1. Start
2. Define an integer variable side and assign it a value.
3. Calculate the area of the square using the formula: $\text{area} = \text{side} * \text{side}$
4. Print the result: The area of square is: area.
5. End

6) Write a Java program that calculates the area of a rectangle using the formula $\text{area} = \text{length} * \text{width}$. Use predefined values for length and width.

Ans.



Algorithm:

1. Start
2. Declare and initialize two integer variables length and width.
3. Calculate the area using the formula: $\text{area} = \text{length} * \text{width}$
4. Print the result: "The area of the rectangle is": area
5. End