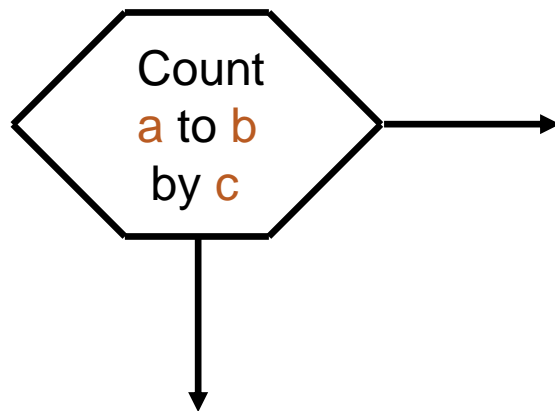


# VISUAL LOGIC

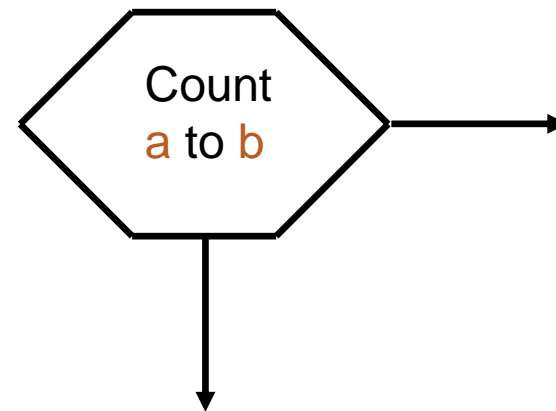
## Chapter 4

# For Loops

- Used to automate the *initialize*, *test*, and *update* process.

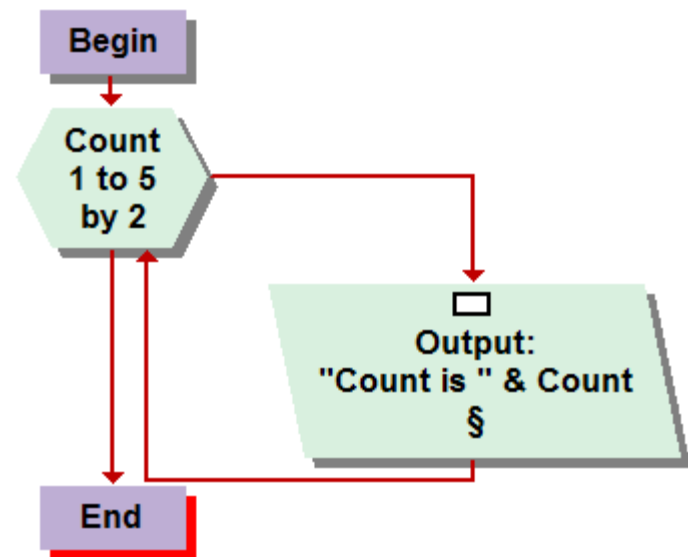
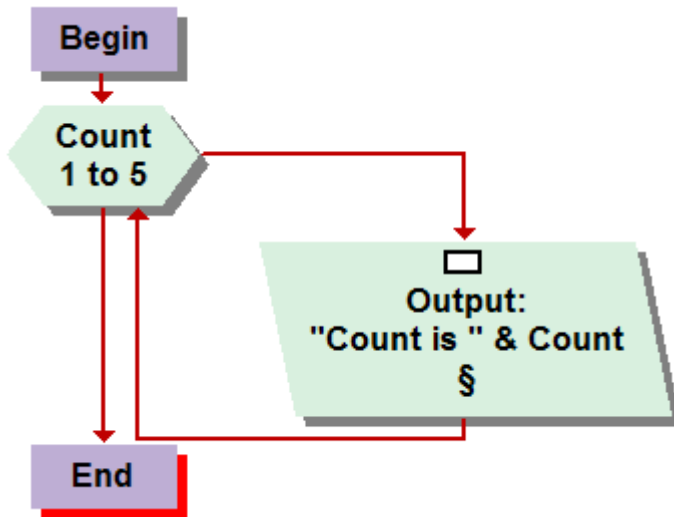


a: Initialize  
b: Test  
c: Step



a: Initialize  
b: Test  
Step = 1

# Step Value in For Loops



```
Count is 1
Count is 2
Count is 3
Count is 4
Count is 5
```

```
Count is 1
Count is 3
Count is 5
```



# For Loop with Negative Step Value Example

# Comparing While and For Loops

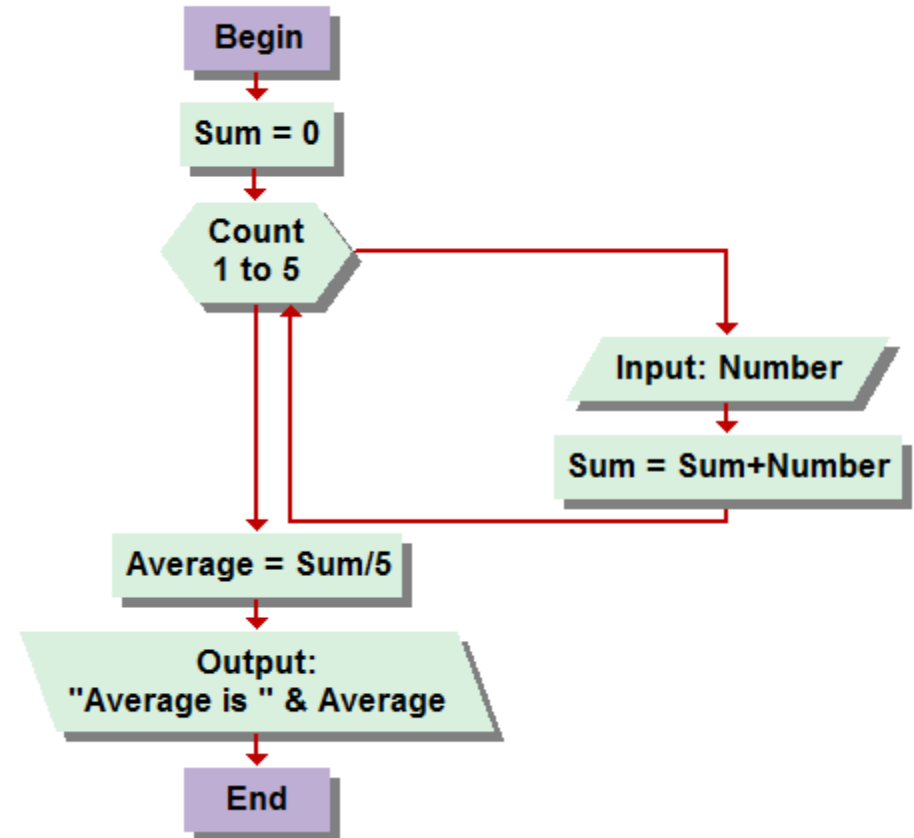
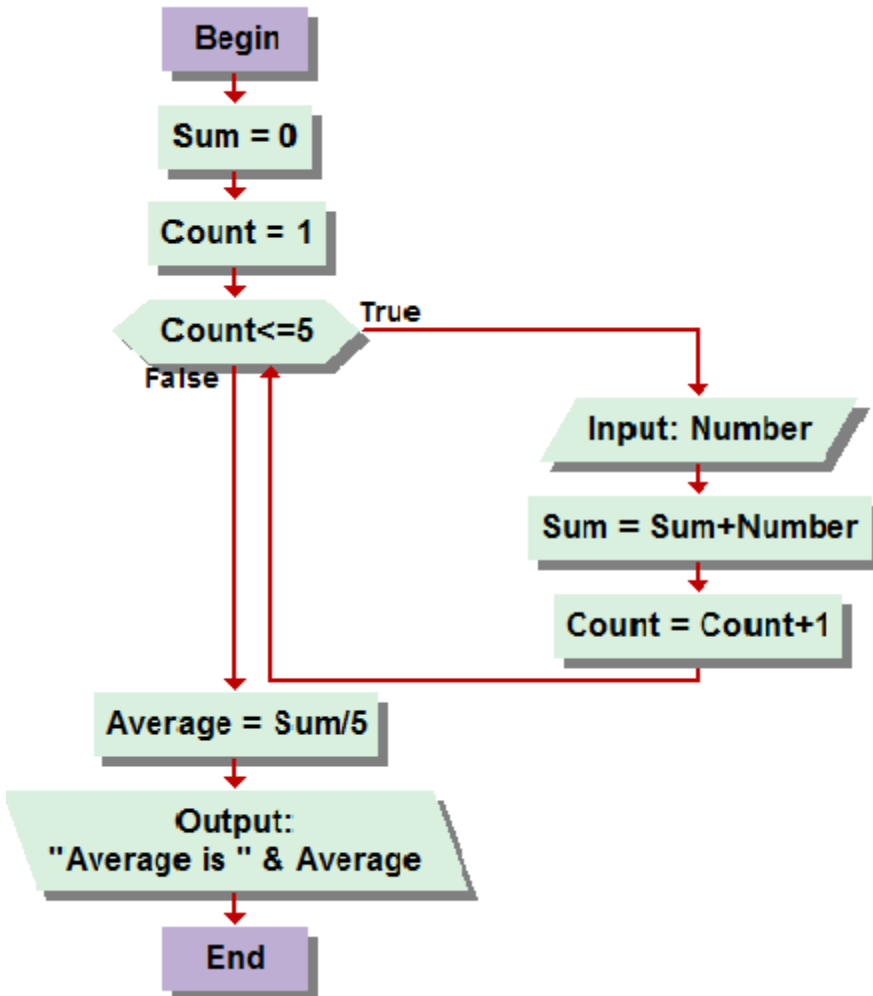
## ◉ While

- Explicit Initialization statement
- Explicit Test Condition statement
- Explicit Update statement

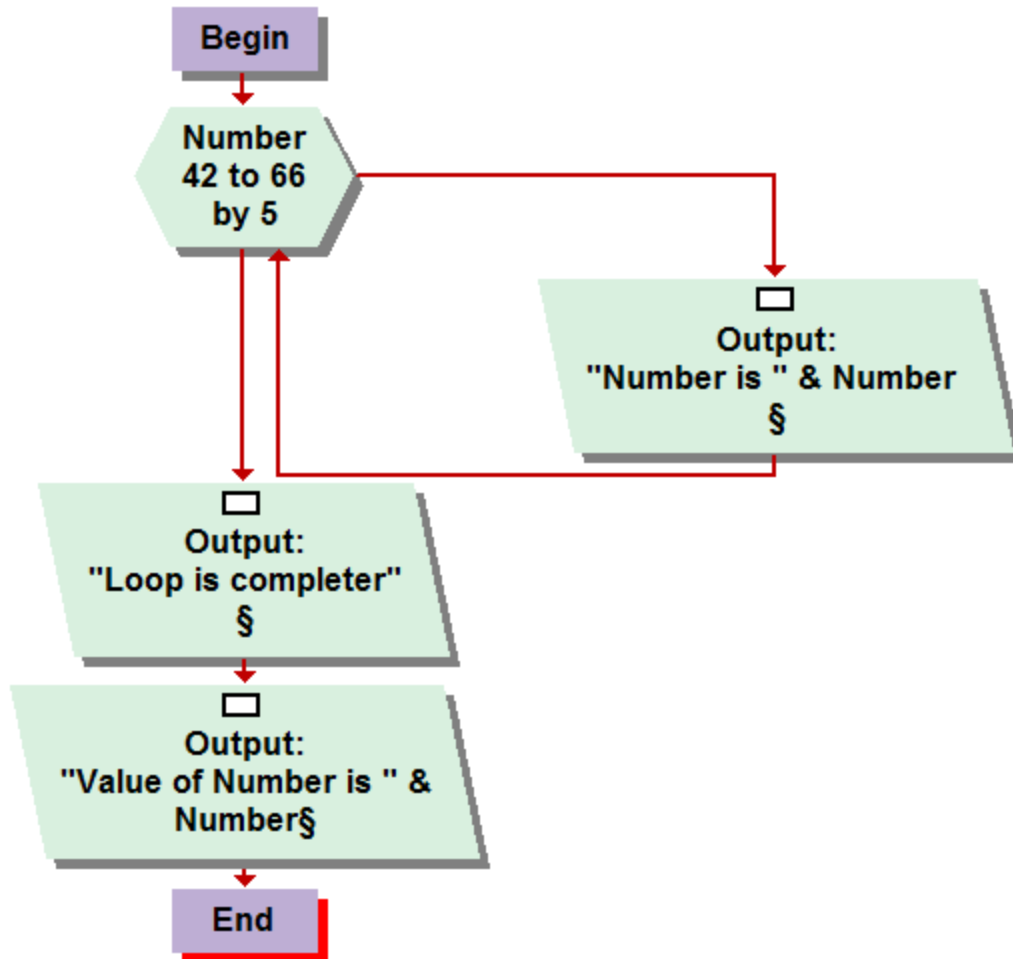
## ◉ For

- Automatically performs these three actions

# Comparison of While and For Loops



# Example



```
Number is 42
Number is 47
Number is 52
Number is 57
Number is 62
Loop is completer
Value of Number is 67
```

The screenshot shows a terminal window with a teal background. It displays the output of the loop process, showing the sequence of numbers from 42 to 62, followed by the completion message and the final value of the number, 67.

# Nested Loops

- Loop contained inside the body of another loop





**Nested loop- Printing the values of  
outer loop and inner loop  
counters**

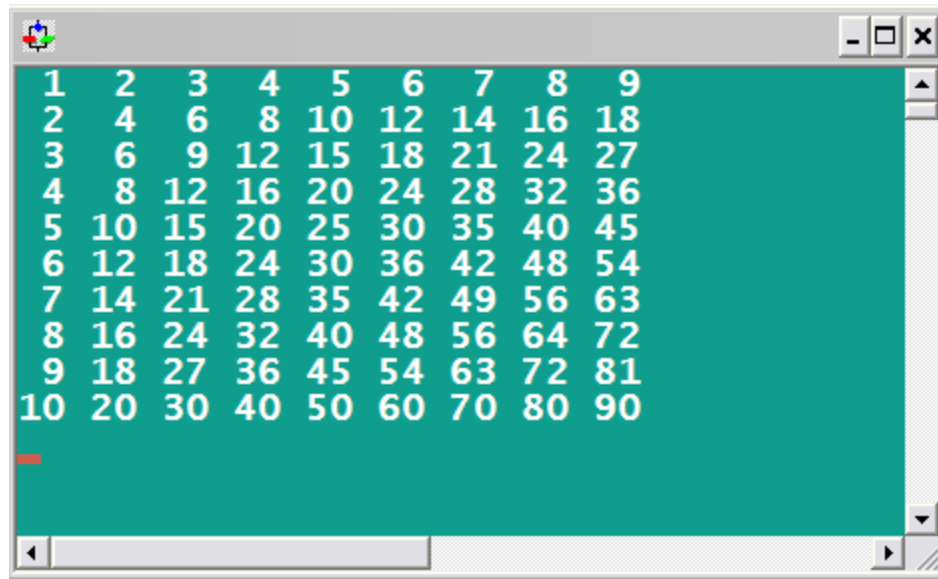


Printing “Hello” 16 times- Solution 1



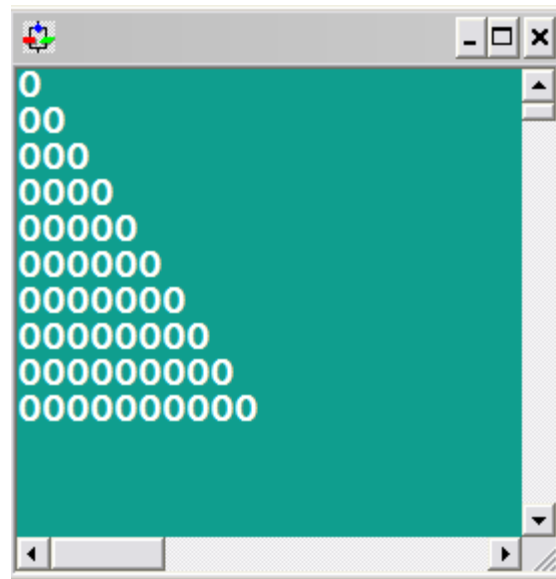
Printing “Hello” 16 times- Solution 2

# Multiplication Table Example



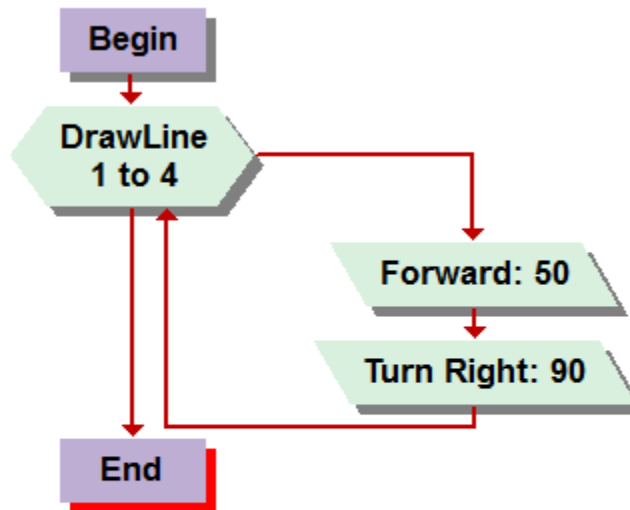
1	2	3	4	5	6	7	8	9	
2	4	6	8	10	12	14	16	18	
3	6	9	12	15	18	21	24	27	
4	8	12	16	20	24	28	32	36	
5	10	15	20	25	30	35	40	45	
6	12	18	24	30	36	42	48	54	
7	14	21	28	35	42	49	56	63	
8	16	24	32	40	48	56	64	72	
9	18	27	36	45	54	63	72	81	
10	20	30	40	50	60	70	80	90	

# Triangle Problem Example

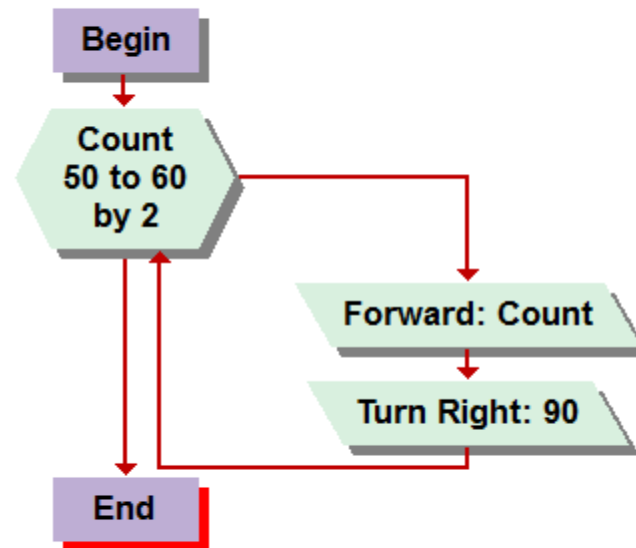


# Some Graphics

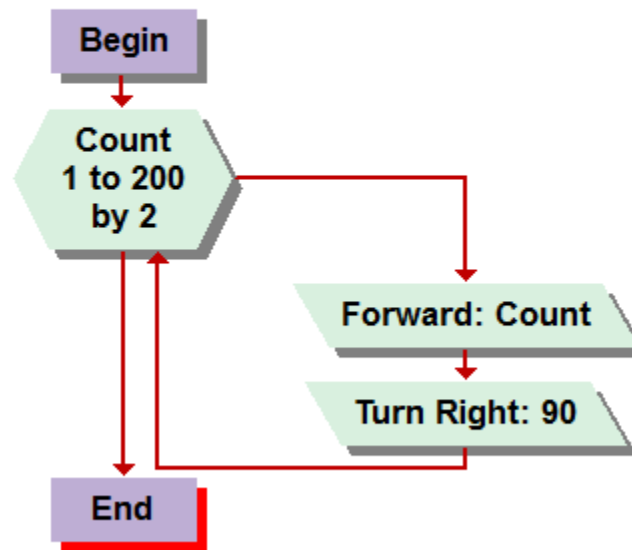
Drawing a  
Box



# More Box Demo



# Fun Box





# Twisted Box with Color

