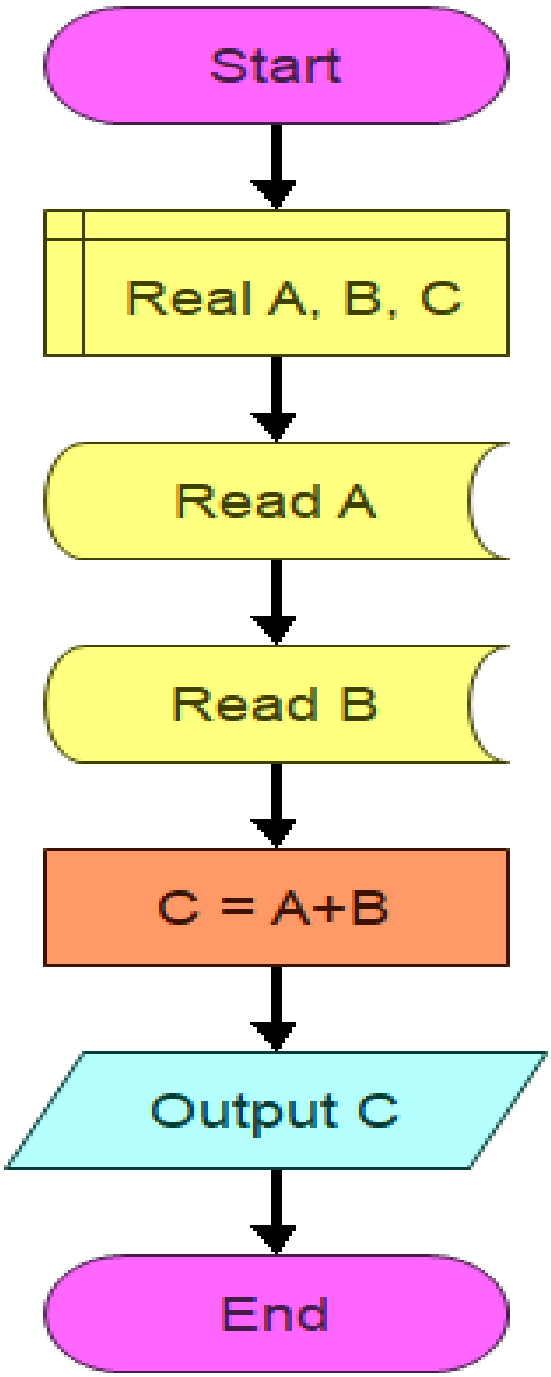
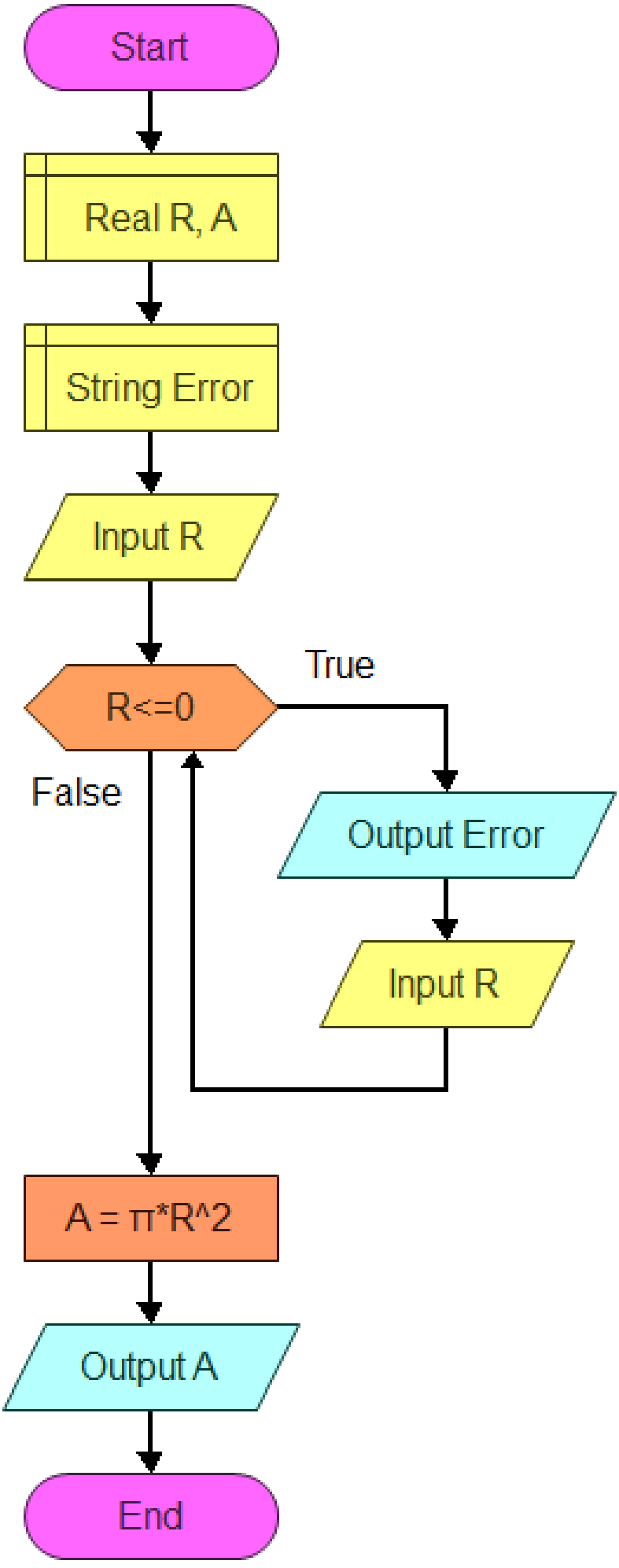
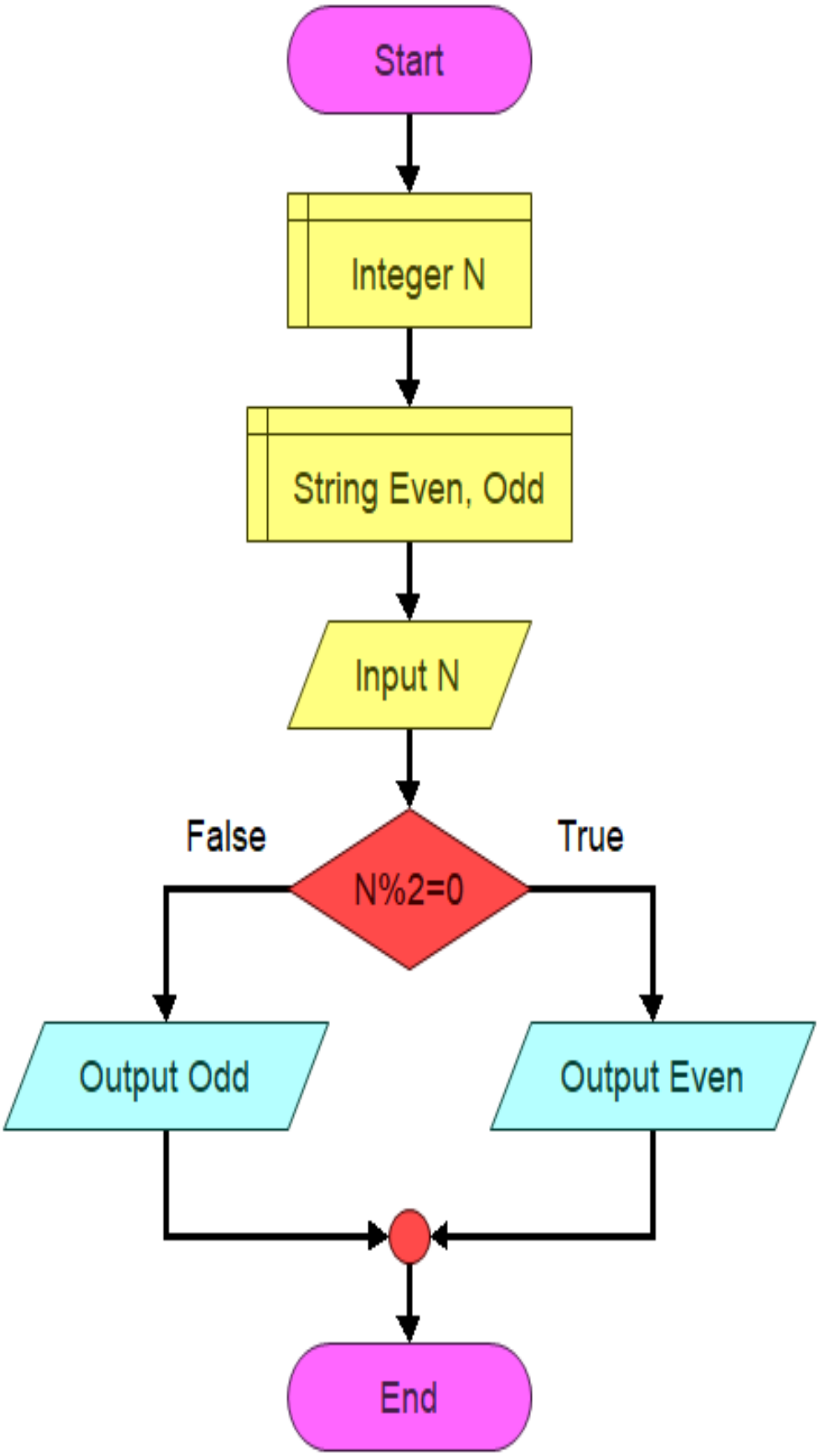
HOMEWORK



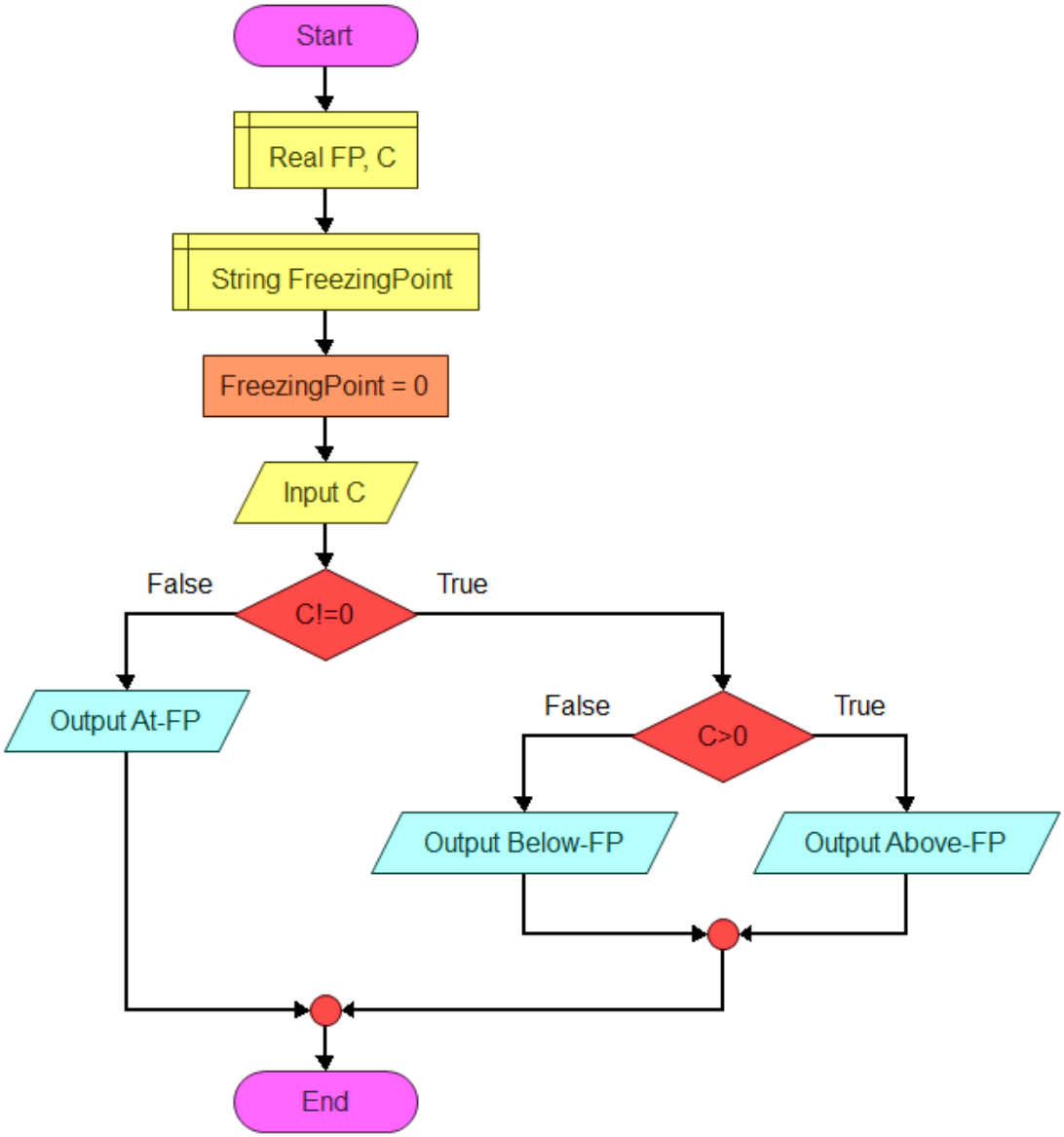
I.


Start
Real R, A
String Error
Input R
R<=0
True
False
Output Error
Input R
A = π*R^2
Output A
End

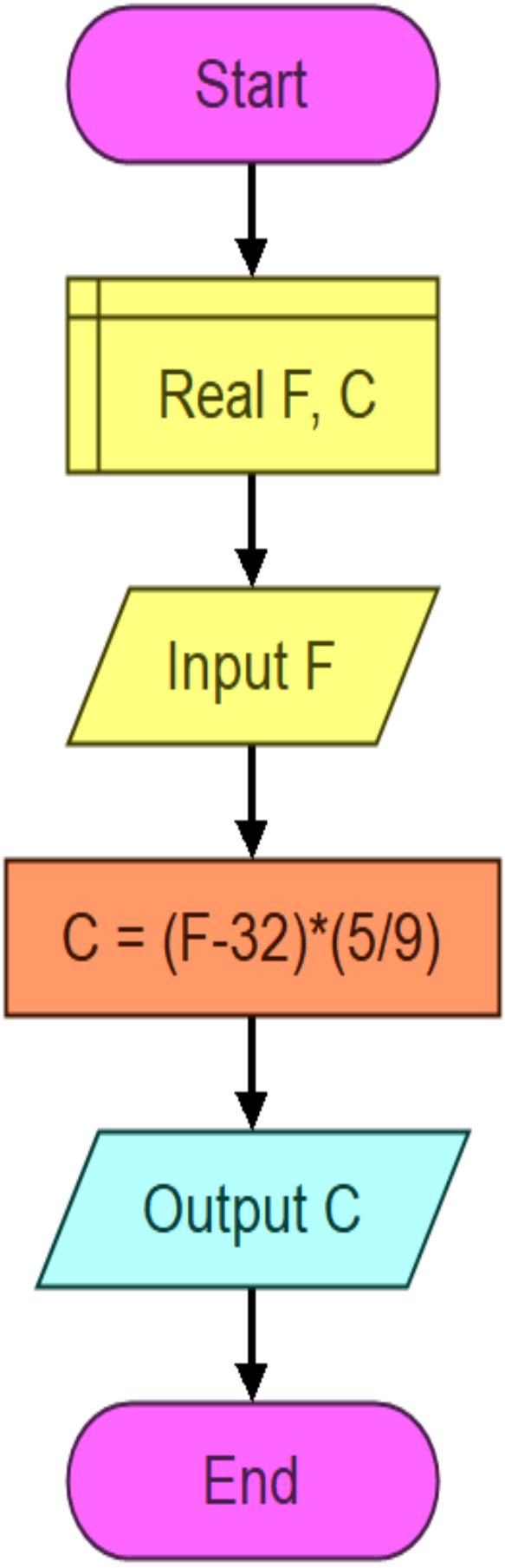
II.


Start
Integer N
String Even, Odd
Input N
False
True
N%2=0
Output Odd
Output Even
End

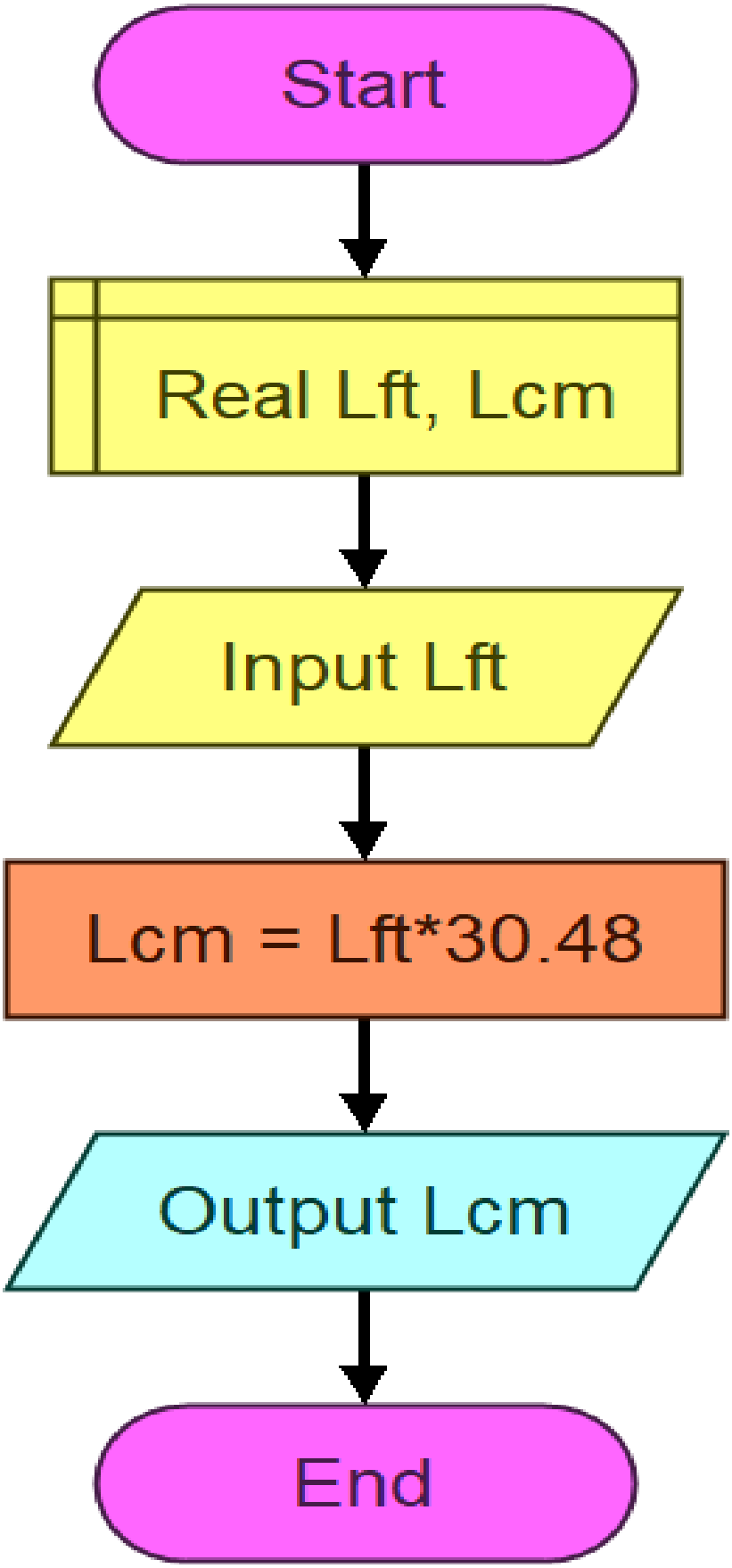
III.


Start
Real FP, C
String FreezingPoint
FreezingPoint = 0
Input C
False
C!=0
True
Output At-FP
False
C>0
True
Output Below-FP
Output Above-FP
End

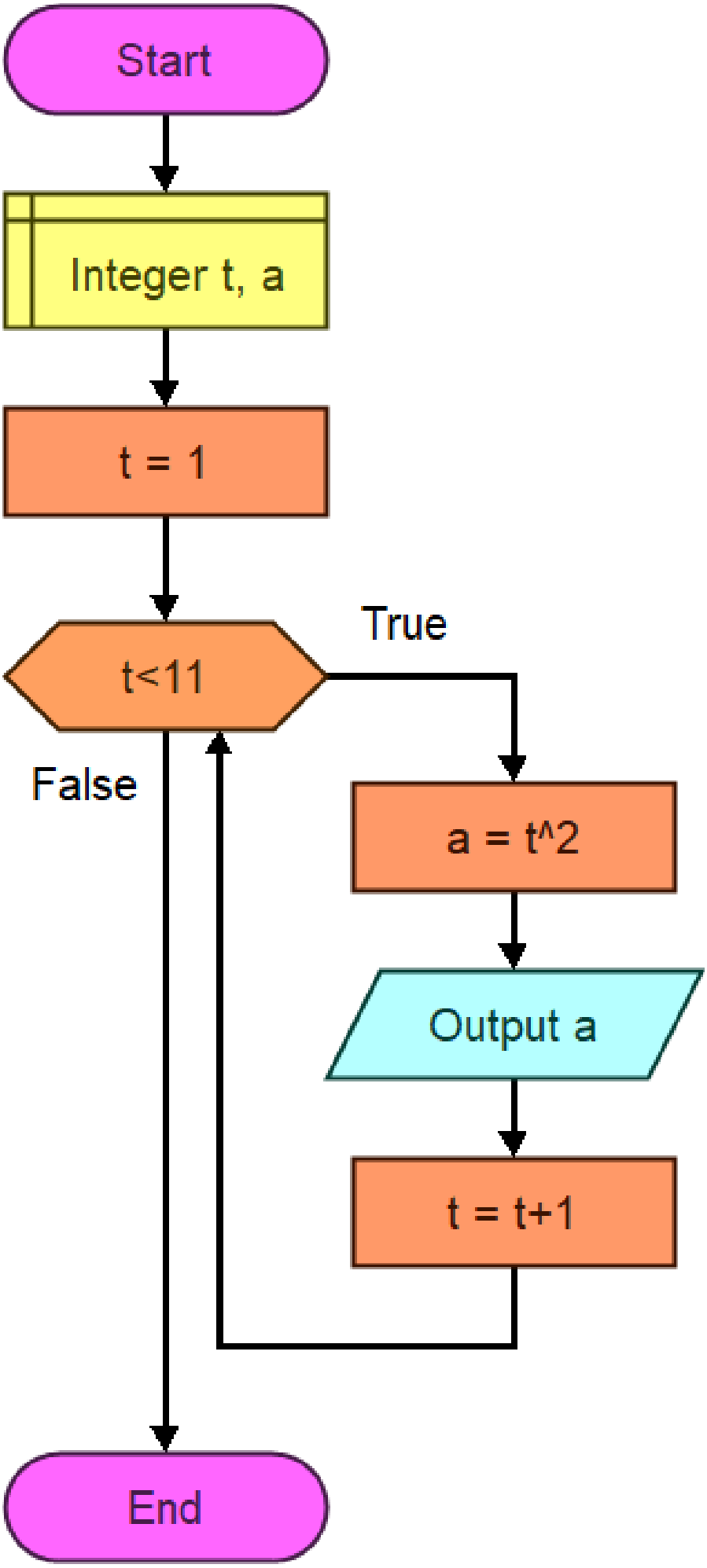
IV.



v.

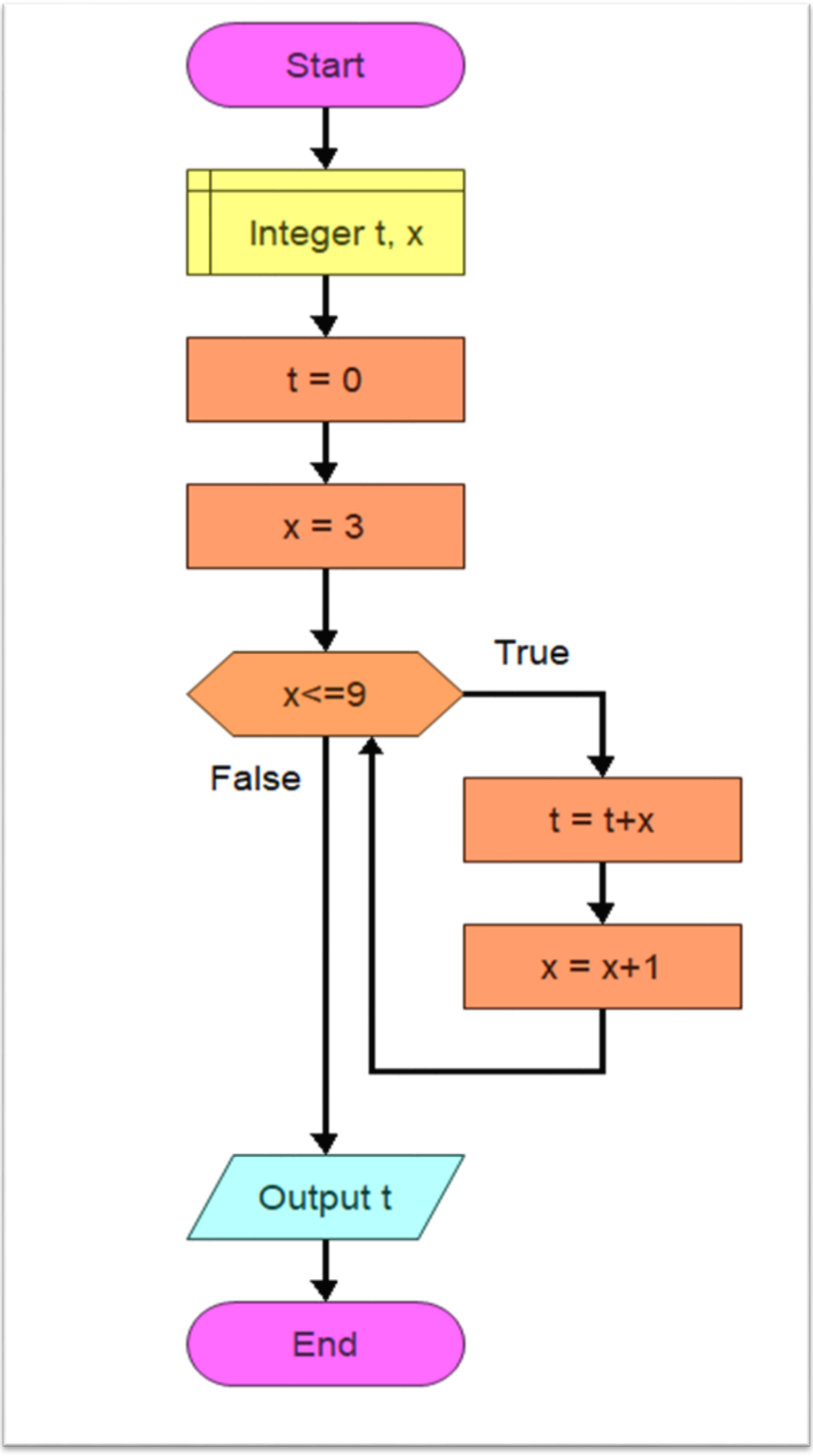


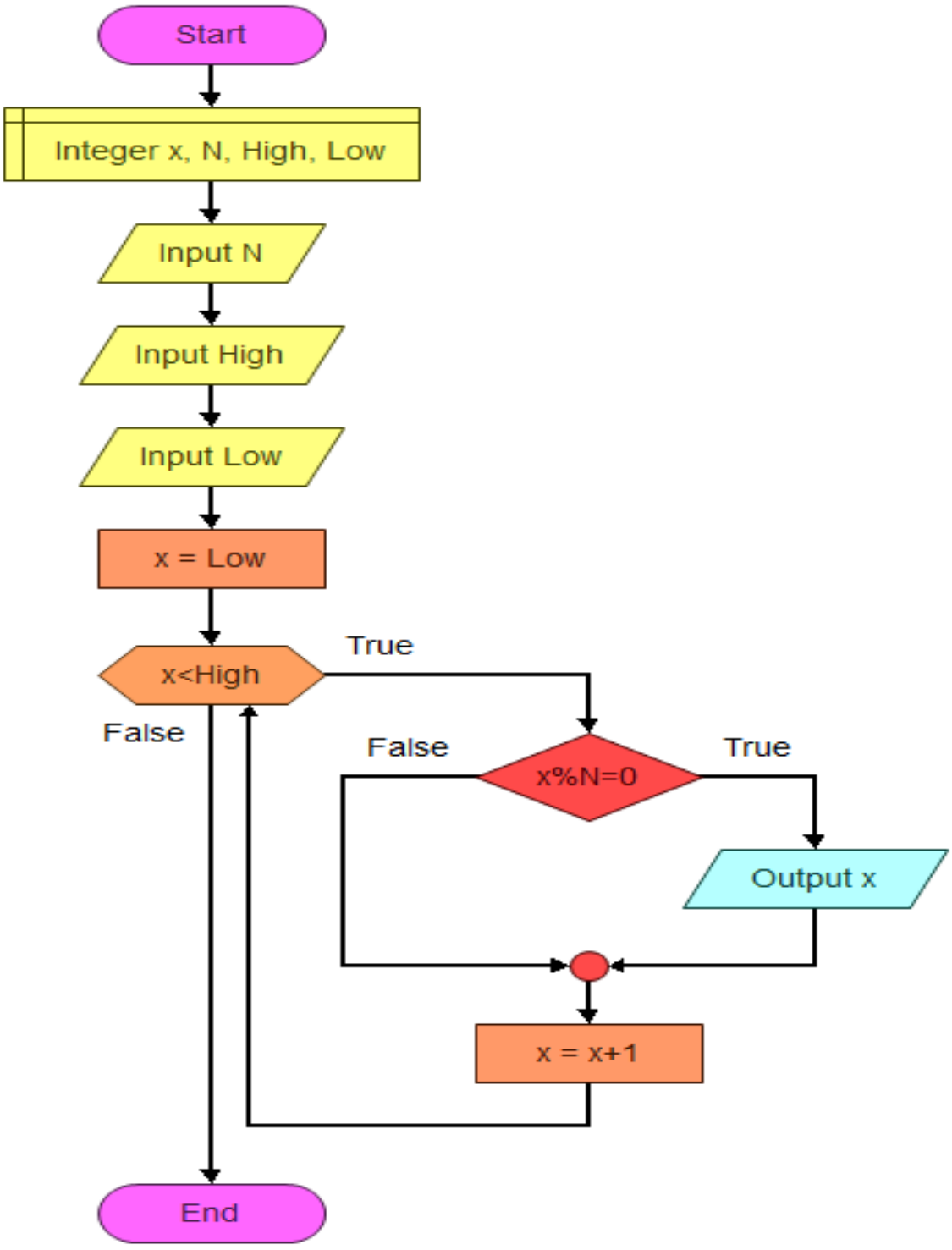
VI.



VII.

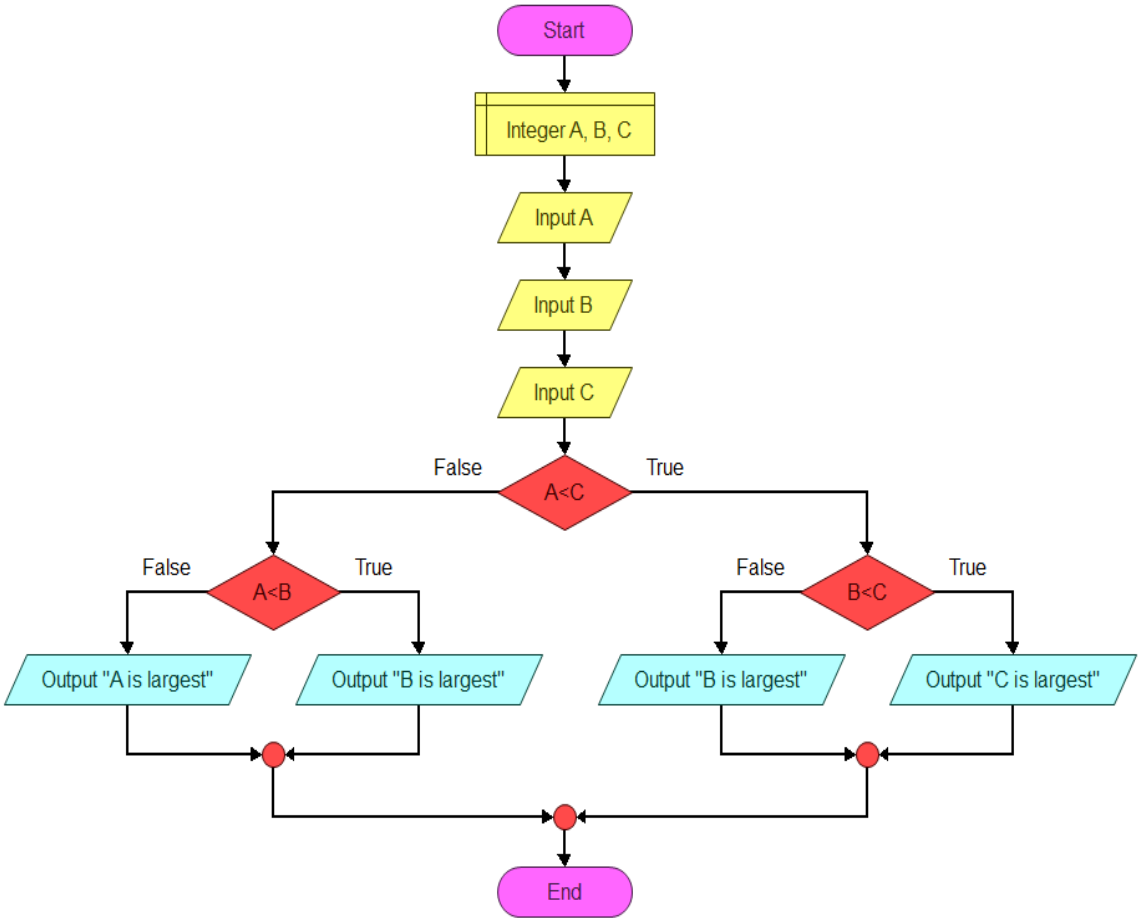
VIII.

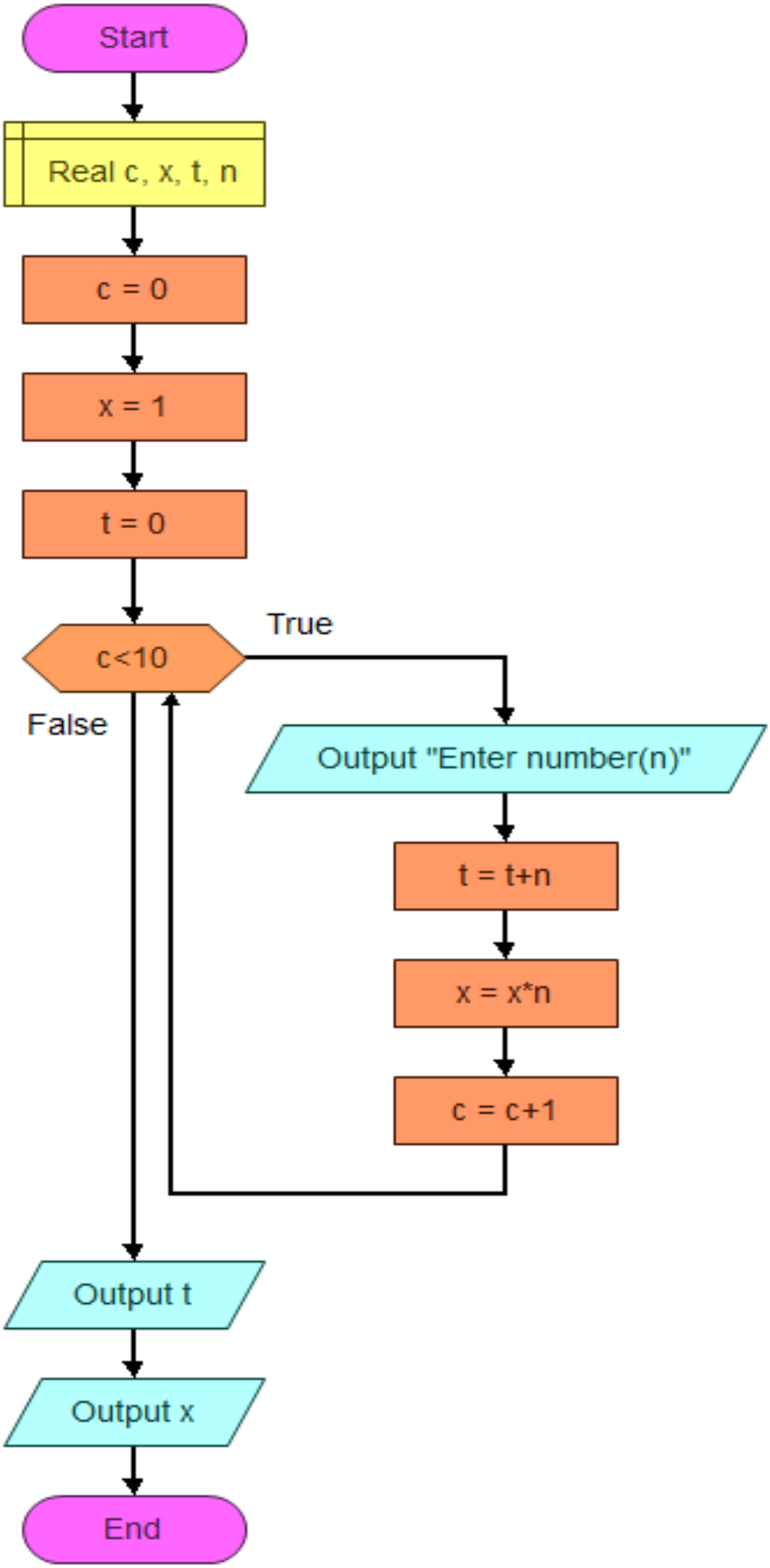



Start
Integer x, N, High, Low
Input N
Input High
Input Low
x = Low
x<High
True
False
False
x%N=0
True
Output x
x = x+1
End

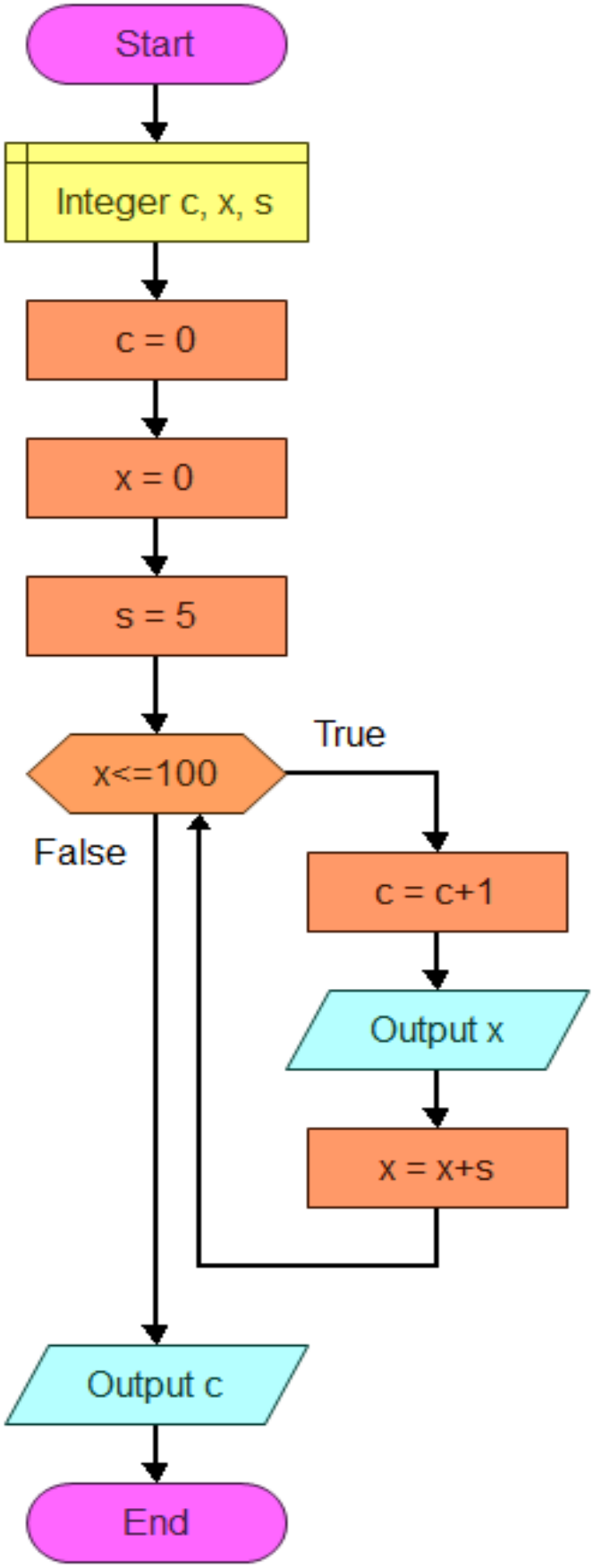
IX.

X.

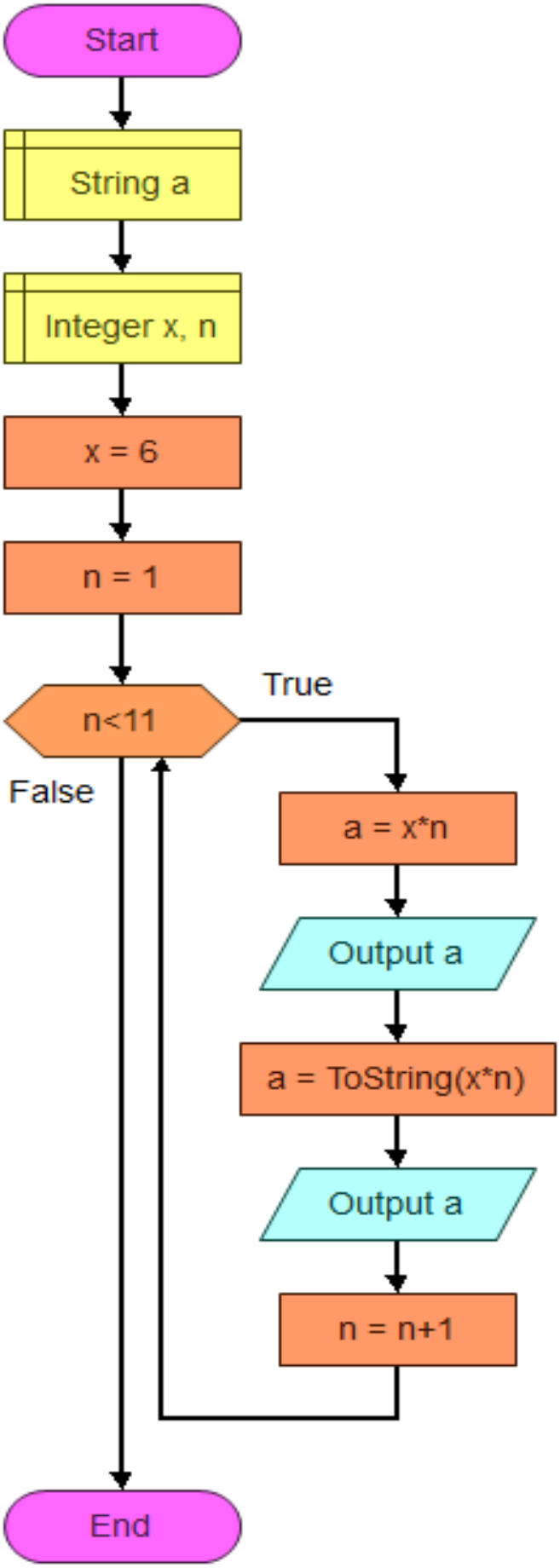

Start
Integer A, B, C
Input A
Input B
Input C
False
A<C
True
False
A<B
True
False
B<C
True
Output "A is largest"
Output "B is largest"
Output "B is largest"
Output "C is largest"
End


Start
Real c, x, t, n
c = 0
x = 1
t = 0
c<10
True
False
Output "Enter number(n)"
t = t+n
x = x*n
c = c+1
Output t
Output x
End

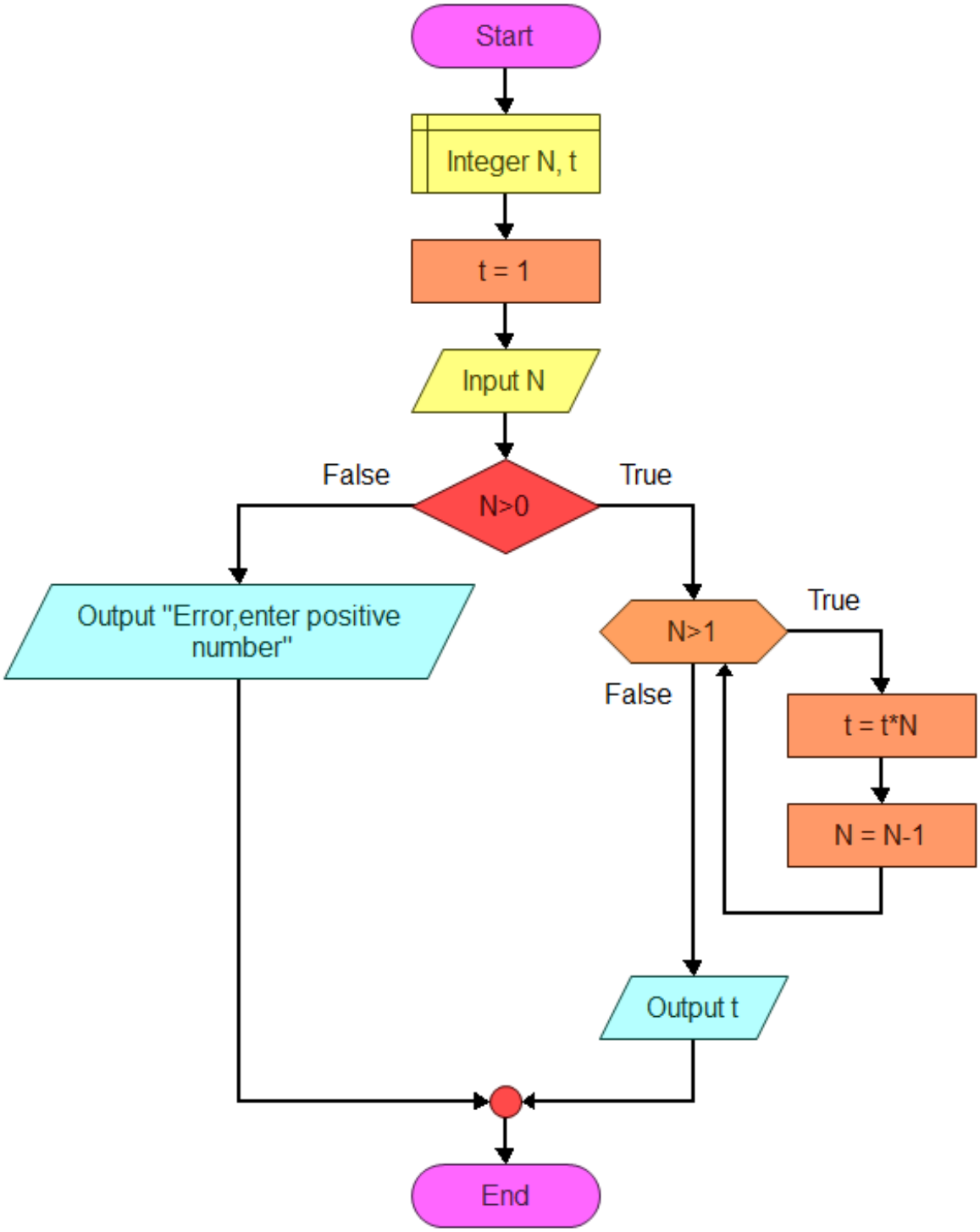
XI.


Start
Integer c, x, s
c = 0
x = 0
s = 5
x<=100
True
False
c = c+1
Output x
x = x+s
Output c
End

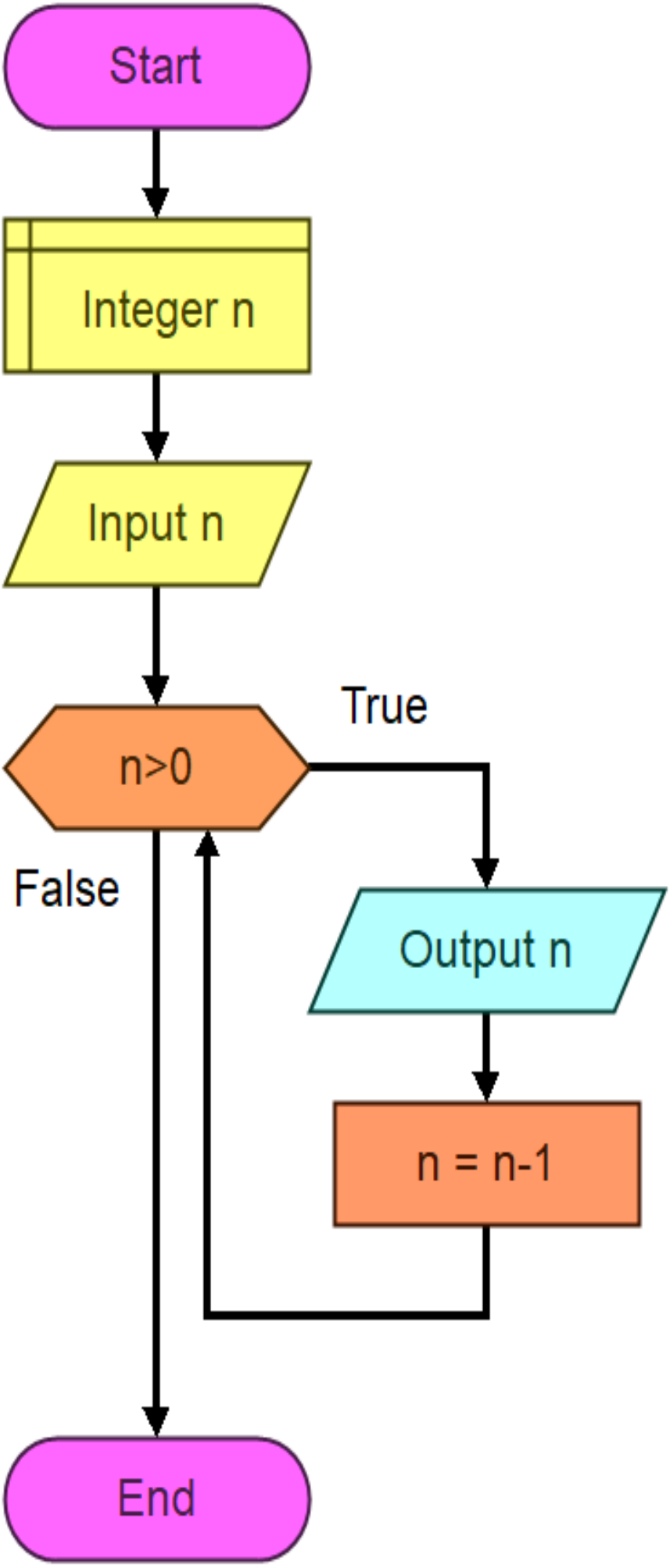
XII.


Start
String a
Integer x, n
x = 6
n = 1
n<11
True
False
a = x*n
Output a
a = ToString(x*n)
Output a
n = n+1
End

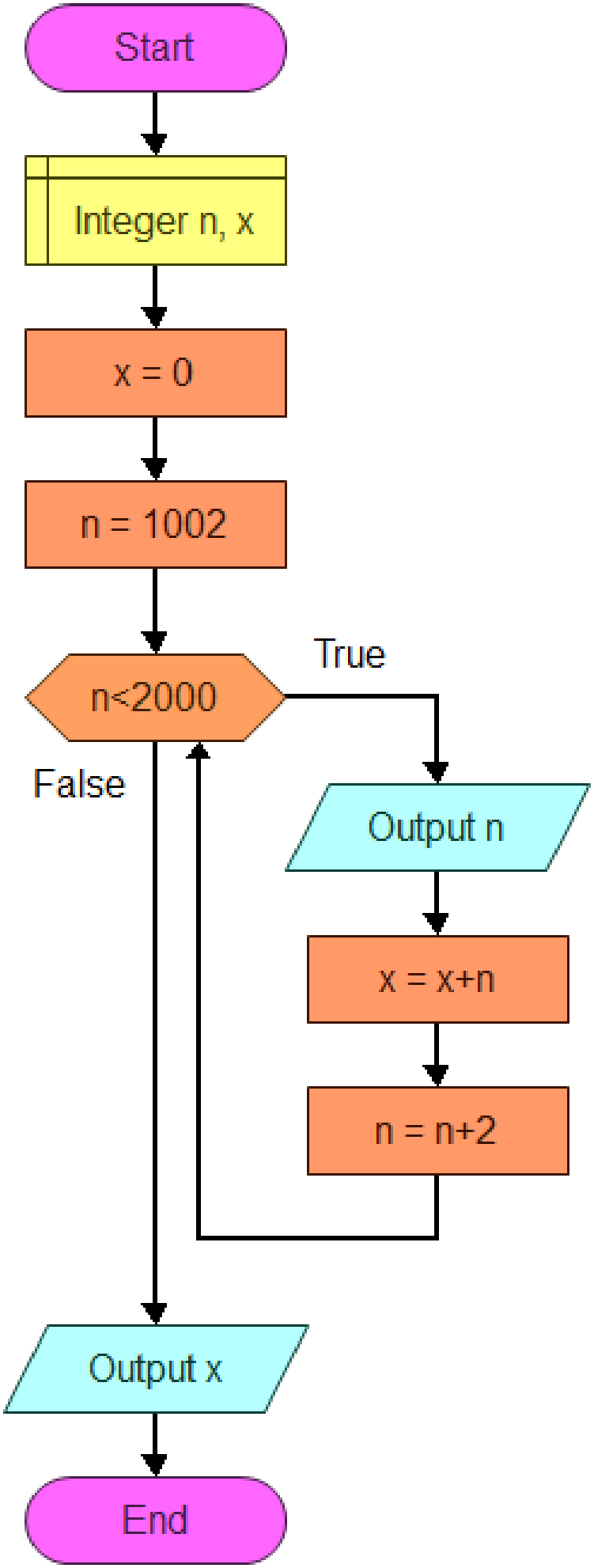
XIII.

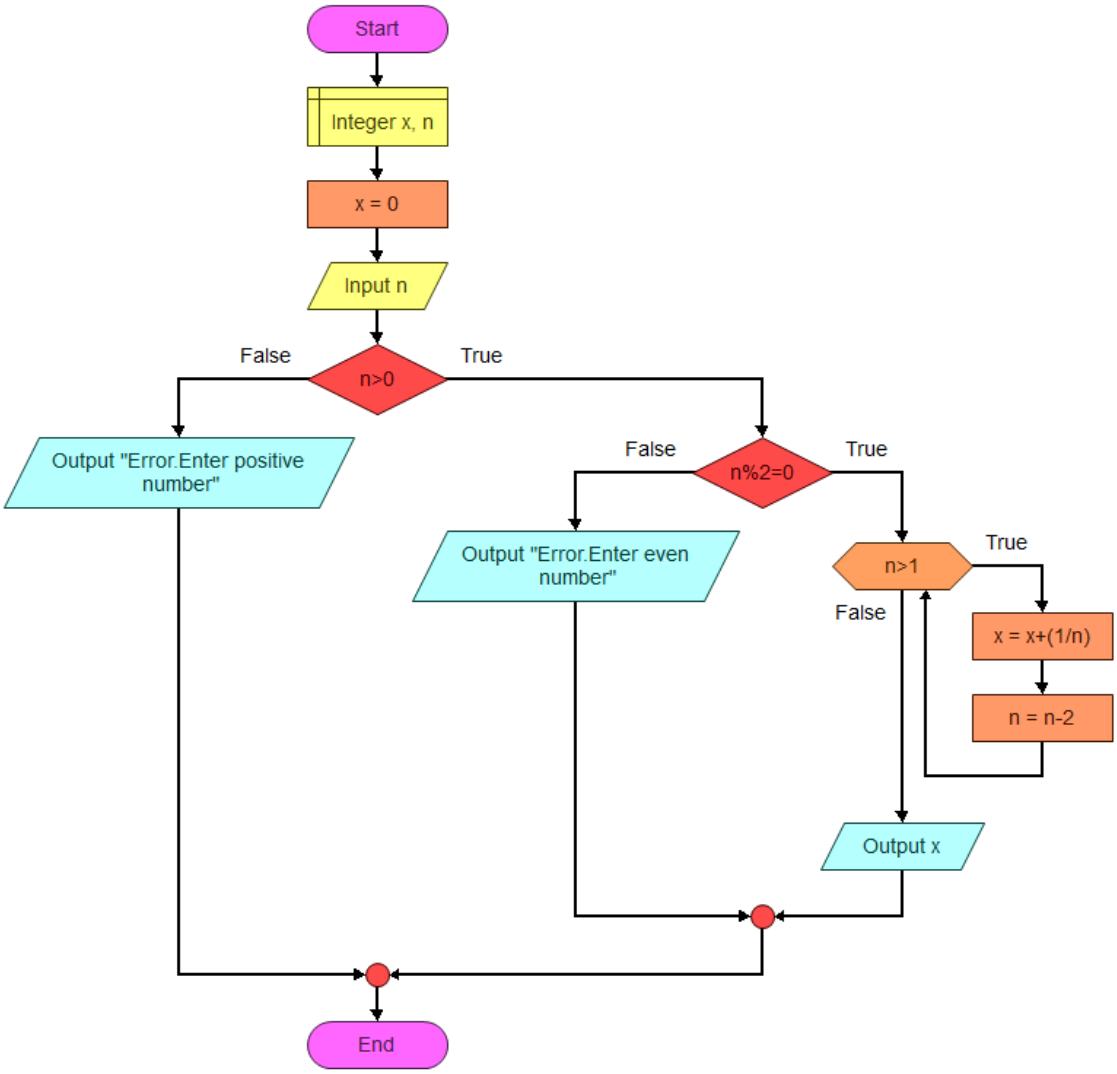

Start
Integer N, t
t = 1
Input N
False
N>0
True
Output "Error,enter positive number"
N>1
True
False
t = t*N
N = N-1
Output t
End

XIV.

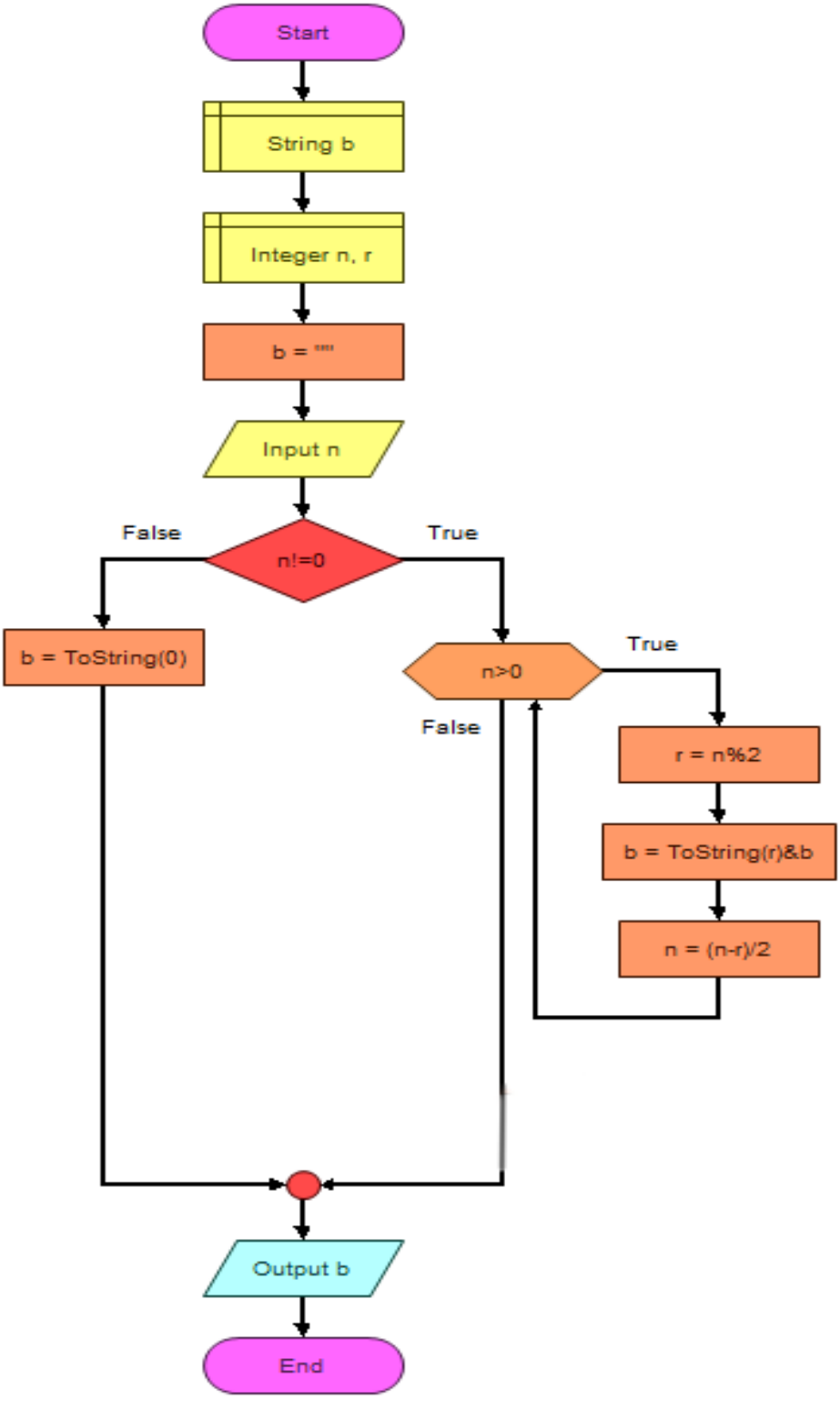


xv.

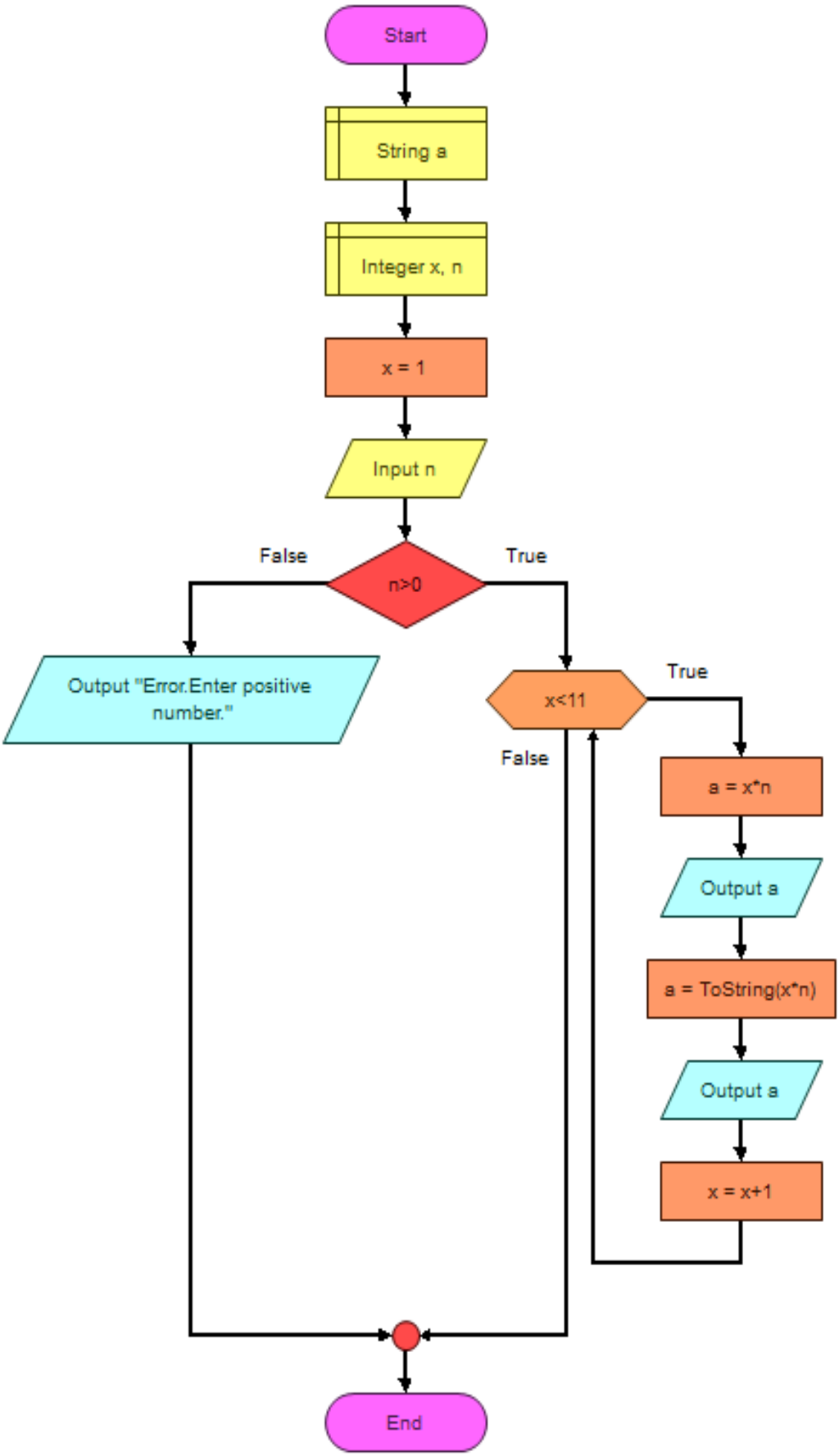

Start
Integer n, x
x = 0
n = 1002
n<2000
True
False
Output n
x = x+n
n = n+2
Output x
End


Start
Integer x, n
x = 0
Input n
False
n>0
True
Output "Error.Enter positive number"
False
n%2=0
True
Output "Error.Enter even number"
True
n>1
False
x = x+(1/n)
n = n-2
Output x
End

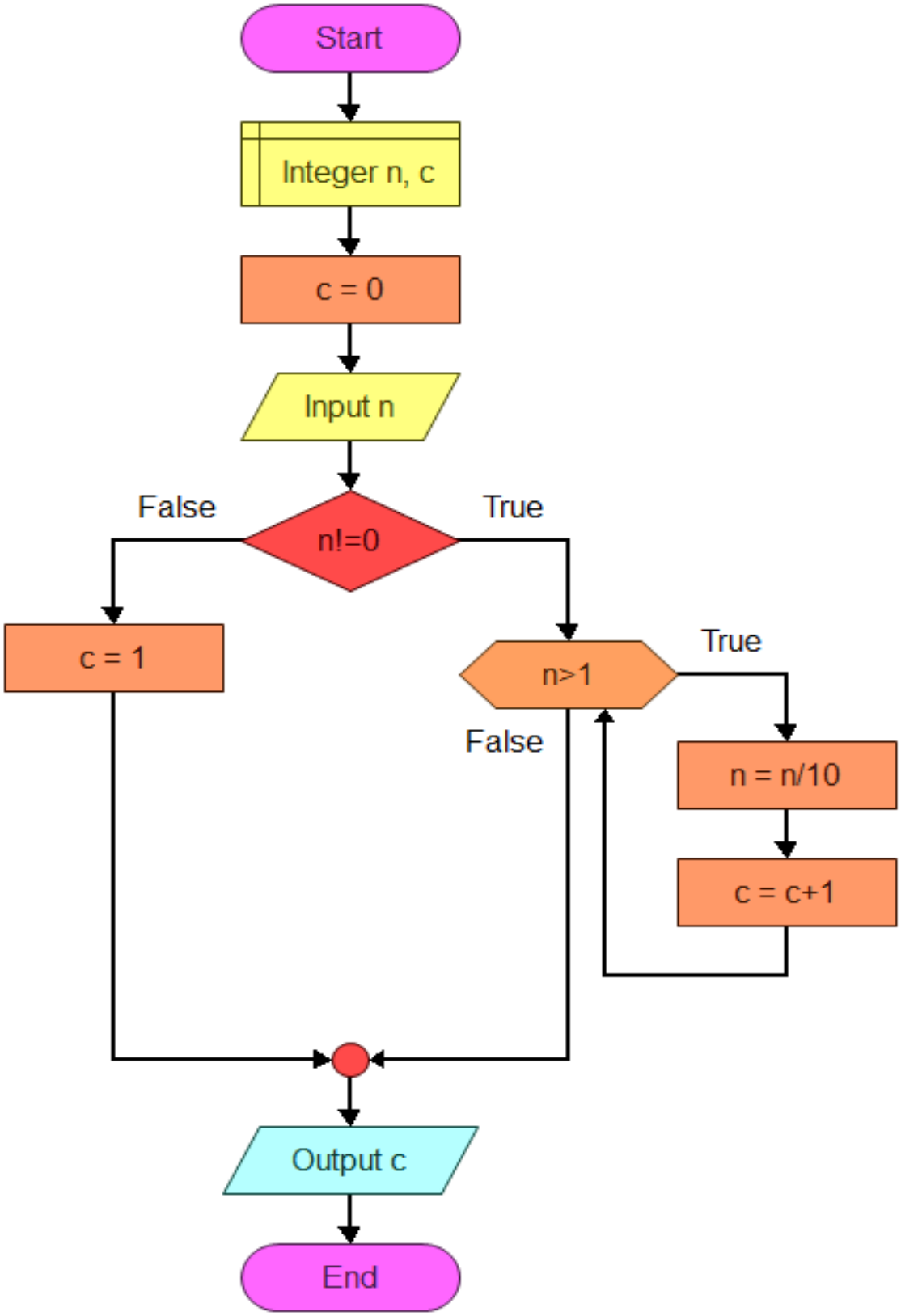
XVII.


Start
String b
Integer n, r
b = ""
Input n
False
n!=0
True
b = ToString(0)
n>0
True
False
r = n%2
b = ToString(r)&b
n = (n-r)/2
Output b
End

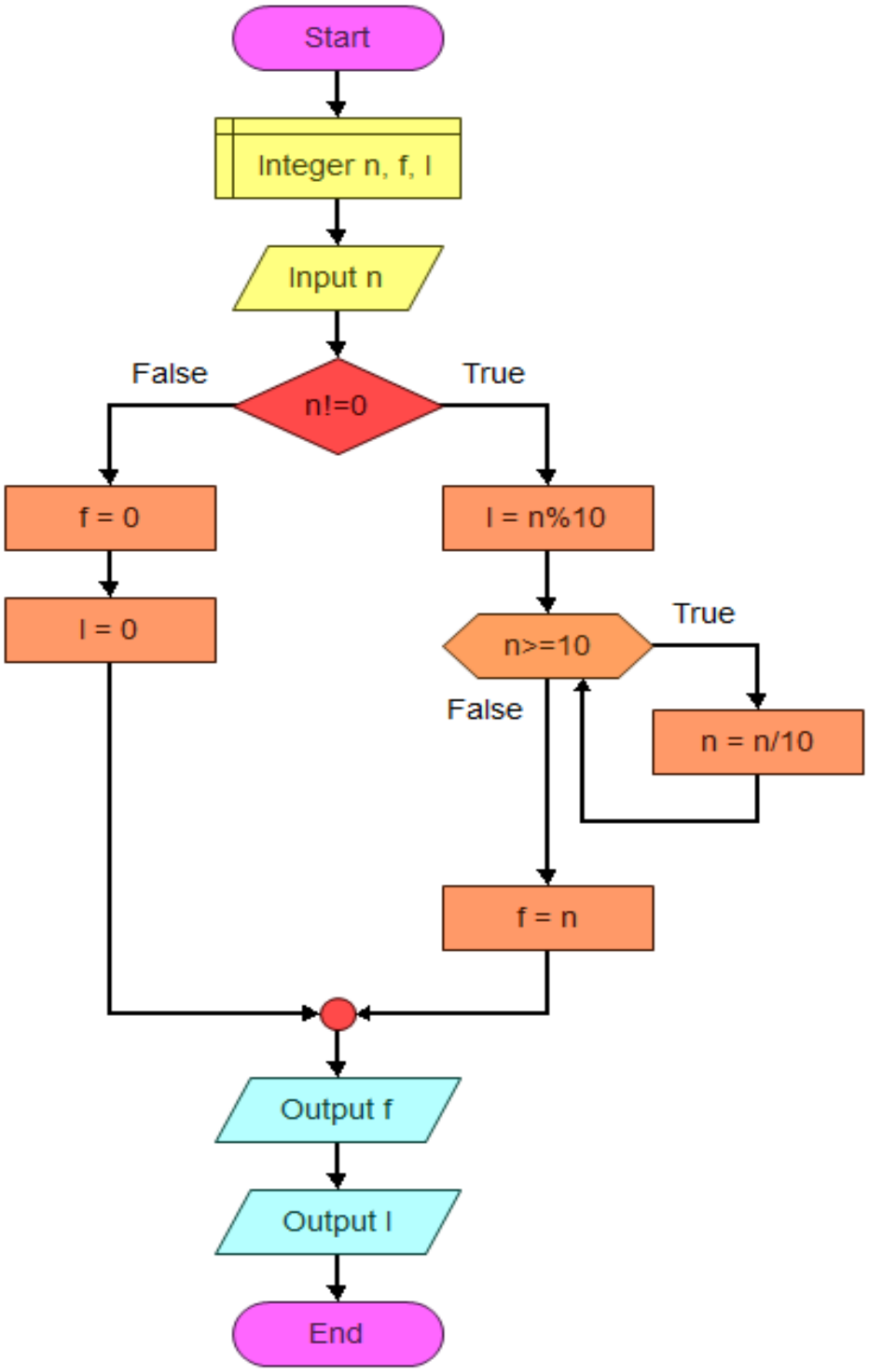
XVIII.


Start
String a
Integer x, n
x = 1
Input n
False
n>0
True
Output "Error.Enter positive number."
x<11
True
False
a = x*n
Output a
a = ToString(x*n)
Output a
x = x+1
End

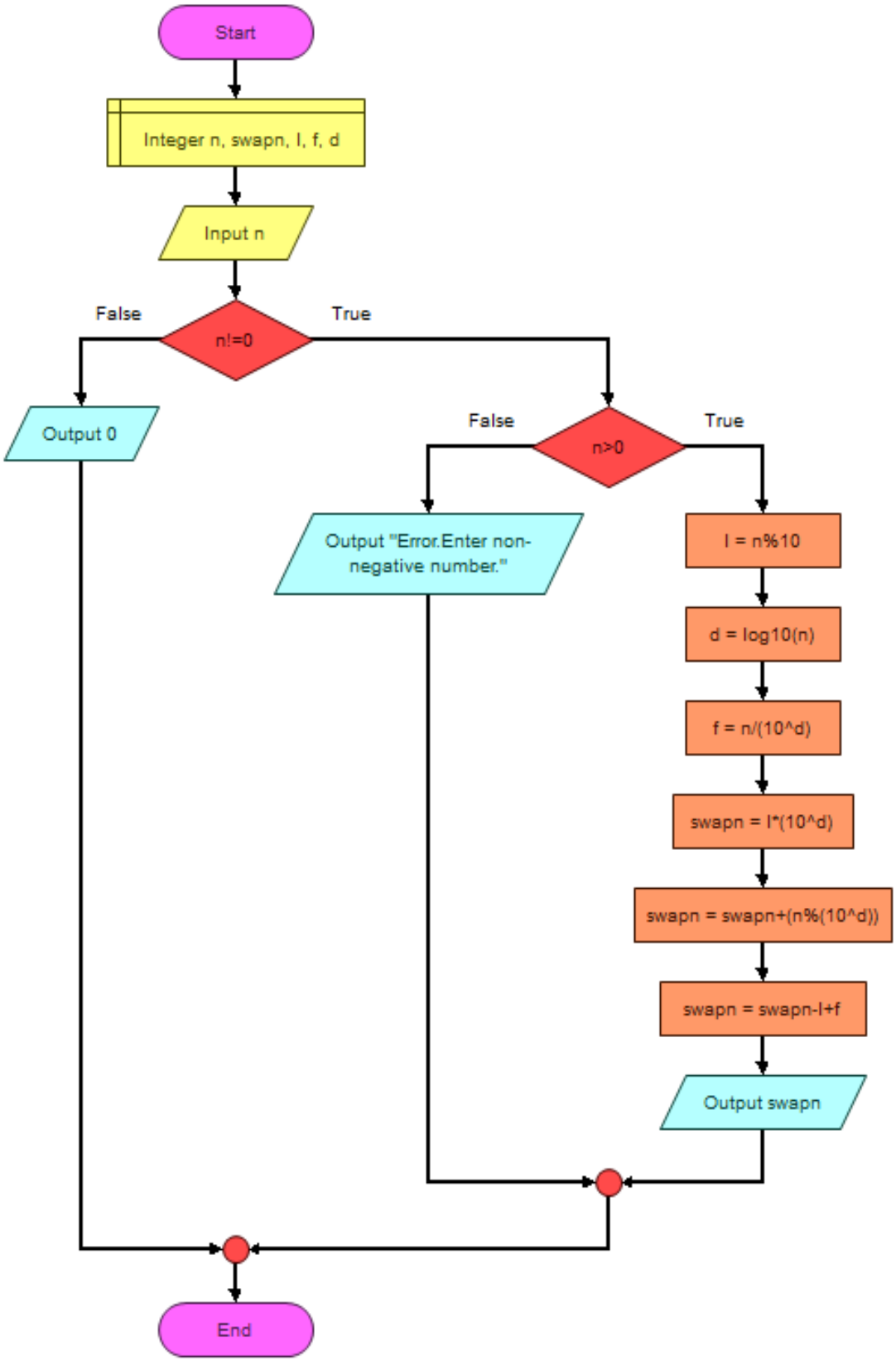
XIX.


Start
Integer n, c
c = 0
Input n
False
n!=0
True
c = 1
n>1
True
False
n = n/10
c = c+1
Output c
End

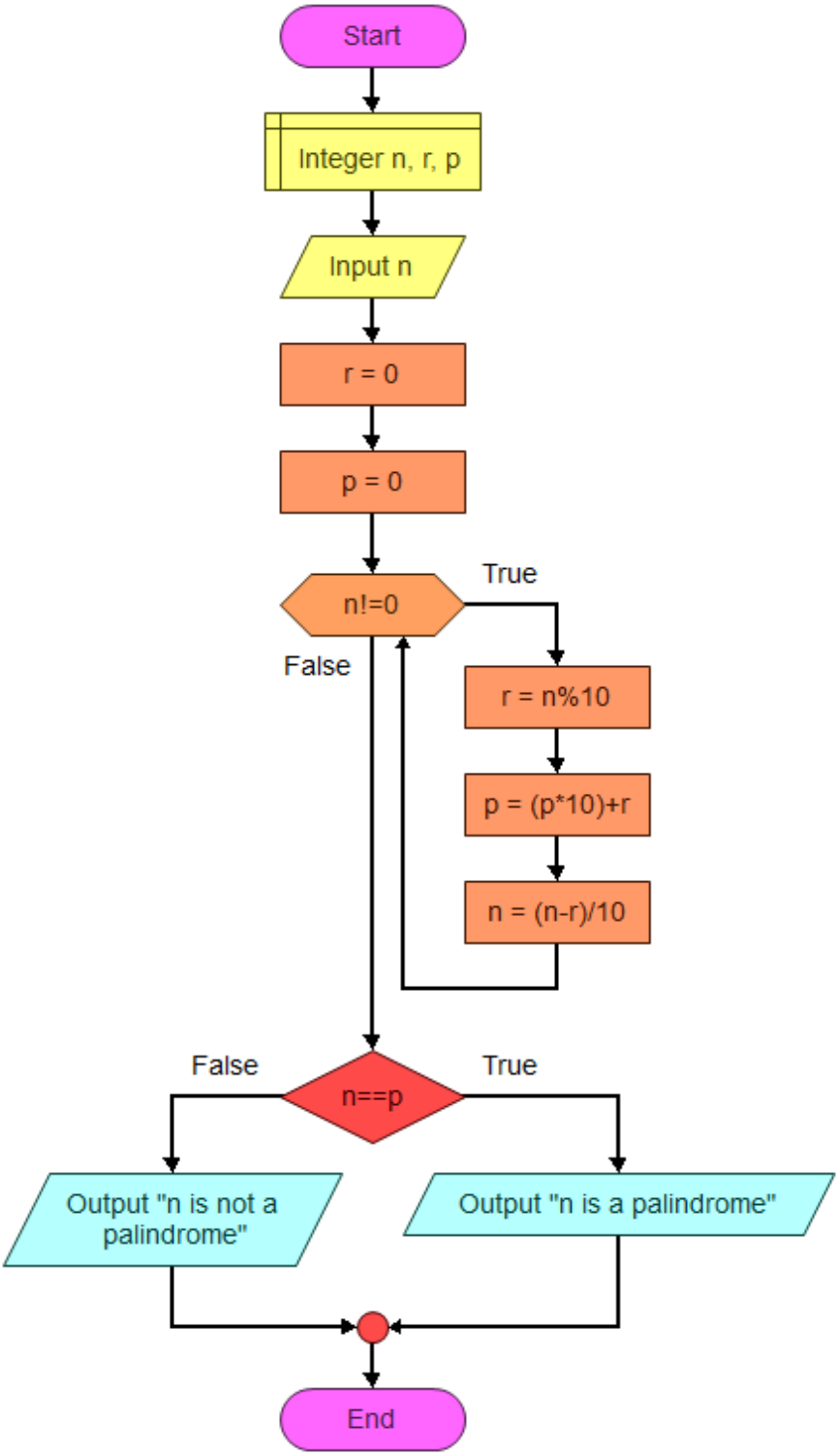
xx.


Start
Integer n, f, l
Input n
False
n!=0
True
f = 0
l = 0
l = n%10
n>=10
True
False
n = n/10
f = n
Output f
Output l
End

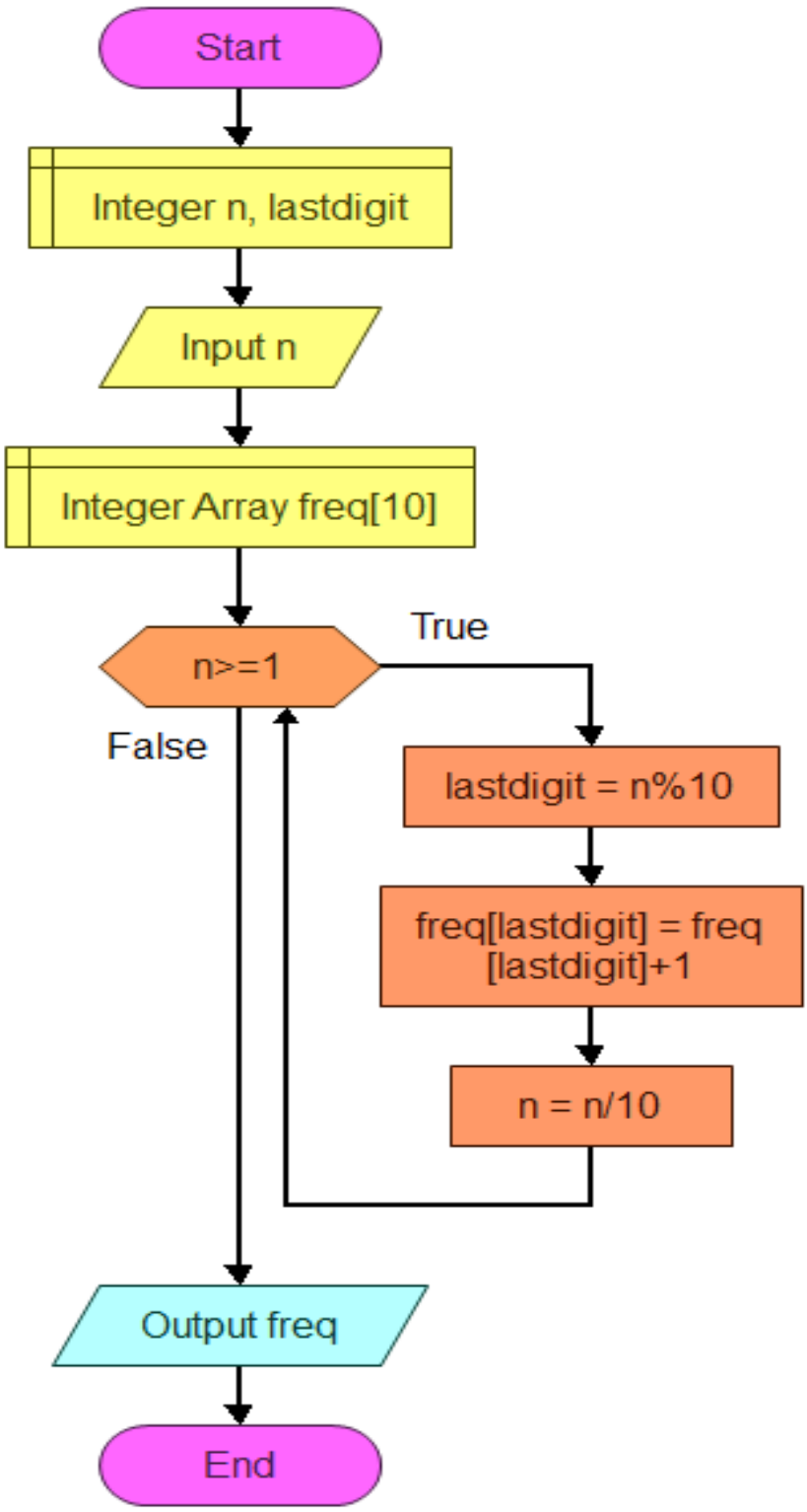
XXI.


Start
Integer n, swapn, l, f, d
Input n
False
n!=0
True
Output 0
False
n>0
True
Output "Error.Enter non-negative number."
l = n%10
d = log10(n)
f = n/(10^d)
swapn = l*(10^d)
swapn = swapn+(n%(10^d))
swapn = swapn-l+f
Output swapn
End

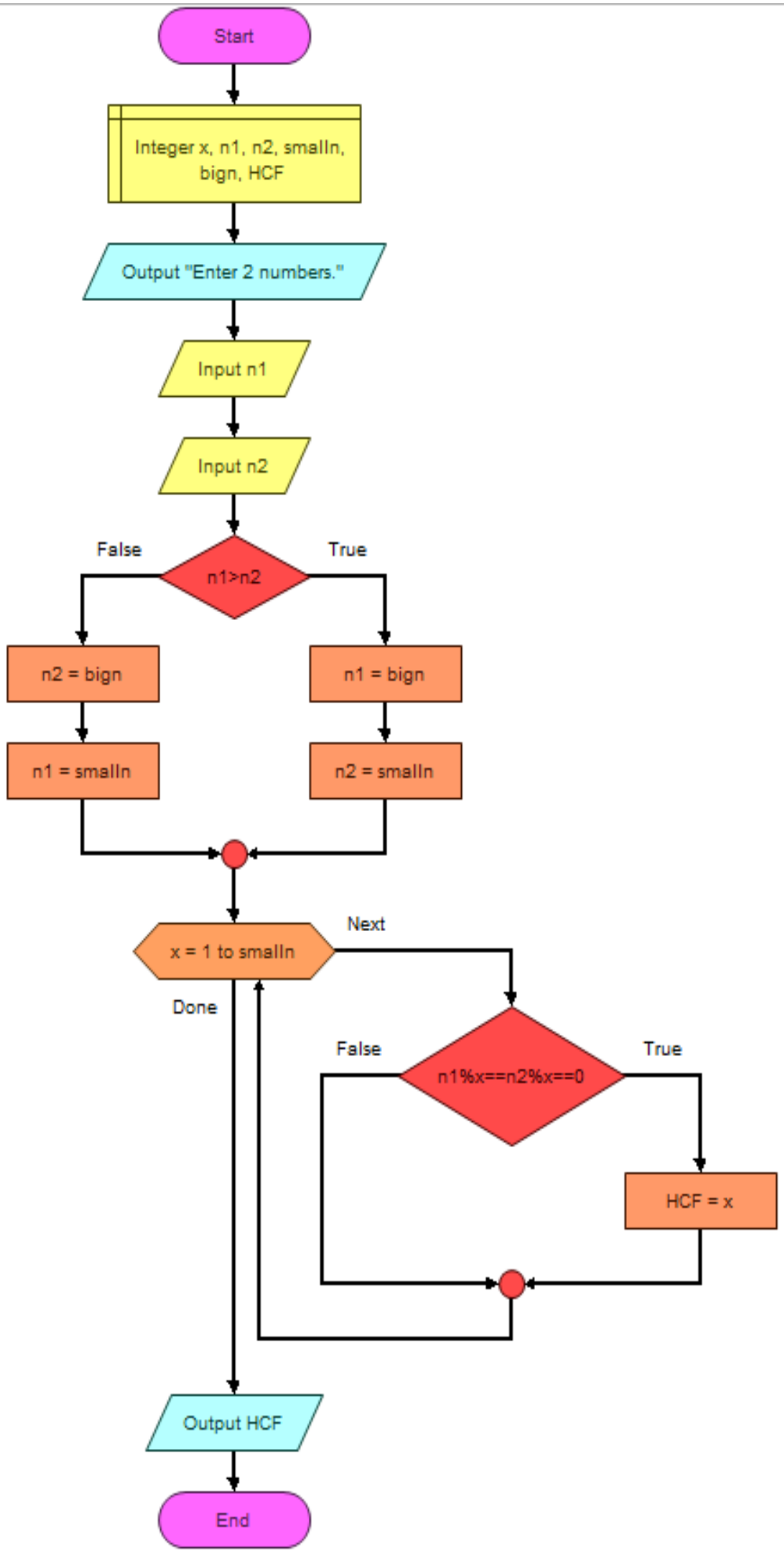
XXII.


Start
Integer n, r, p
Input n
r = 0
p = 0
n!=0
True
False
r = n%10
p = (p*10)+r
n = (n-r)/10
False
n==p
True
Output "n is not a palindrome"
Output "n is a palindrome"
End

XXIII.


Start
Integer n, lastdigit
Input n
Integer Array freq[10]
n>=1
True
False
lastdigit = n%10
freq[lastdigit] = freq [lastdigit]+1
n = n/10
Output freq
End

XXIV.


Start
Integer x, n1, n2, smalln, bign, HCF
Output "Enter 2 numbers."
Input n1
Input n2
False
n1>n2
True
n2 = bign
n1 = smalln
n1 = bign
n2 = smalln
Next
x = 1 to smalln
Done
False
n1%x==n2%x==0
True
HCF = x
Output HCF
End

Homework Questions Part 1

1. Draw a flowchart to add two numbers entered by user.
2. Calculate the area of a circle with given radius.
3. Determine and Output Whether Number N is Even or Odd.
4. Determine Whether a Temperature is Below or Above the Freezing Point.
5. Convert Temperature from Fahrenheit (°F) to Celsius (°C).
6. Write an algorithm and draw a flowchart to convert the length in feet to centimeter.
7. Write an algorithm and draw a flowchart to print the square of all numbers from 1 to10.
8. Write an algorithm and draw a flowchart to print the SUM of numbers from LOW to HIGH. Test with LOW=3 and HIGH=9.
9. Write an algorithm and draw a flowchart to print all numbers between LOW and HIGH that are divisible by NUMBER.
10. Draw a flowchart to find the largest of three numbers A, B, and C.
11. Draw a flowchart for a program that reads 10 numbers from the user and prints out their sum, and their product.
12. Write an algorithm and draw a flowchart to count and print all numbers from LOW to HIGH by steps of STEP. Test with LOW=0 and HIGH=100 and STEP=5.
13. Write an algorithm and draw a flowchart to print the multiplication table for 6's.
14. Draw a flowchart for computing factorial N (N!).
15. Draw a flow chart to print all natural numbers in reverse (from n to 1).
16. Design an algorithm which generates even numbers between 1000 and 2000 and then prints them in the standard output. It should also print total sum.
17. Design an algorithm with a natural number, n, as its input which calculates the following formula and writes the result in the standard output: S = ½ + ¼ + … +1/n.
18. Design an algorithm to convert a decimal number, n, to binary format?
19. Draw a flow chart to print multiplication table of any number.
20. Draw a flow chart to count number of digits in a number.
21. Draw a flow chart to find first and last digit of a number.
22. Draw a flow chart to swap first and last digits of a number.
23. Draw a flow chart to check whether a number is palindrome or not.
24. Draw a flow chart to find frequency of each digit in a given integer.
25. Draw a flow chart to find HCF (Highest Common Factor) of two numbers.