Pseudocodes

I) Sorting an array
---

1. Declare 4 integer variables i.e. i, j, k, l.
2. Declare and initialize an integer array of 5 elements i.e. a[5].
3. Calculate the size of an element in the array (k).
5. Use a "for loop" by initializing i=0 with the condition i<k-1 and increment i.
6. Use a "for loop" by initializing j=0 with the condition j<k-1-i and increment j.
7. Use "if" with the condition a[j]>a[j+1].
8. Assign a[j] to l => l=a[j].
9. Assign a[j+1] to a[j] => a[j]=a[j+1].
10. Assign l to a[j+1] => a[j+1]=l.

II) Find the largest number
---

1. Declare 3 integer variables i.e. i, j, L.
2. Declare and initialize an integer array of 5 elements i.e. a[5]={10,20,30,40,50}.
3. Calculate the size of an element in the array (j).
4. Assign the first element of array to a variable => L=a[0].
5. Use a "for loop" by initializing i=0 with the condition i<j and increment i.
6. Use "if" with the condition a[i]>L.
7. Assign L=a[i].

III) Check for palindrome
---

1. Declare 3 integer variables i.e. i, j, l and initialize j=0.
2. Declare and initialize a character array of 20 elements i.e. s[20]="npn".
3. Use "for loop" to check the length of the string by initializing l=0 with the condition s[l]!='\0' and increment l. End it with a semicolon.
4. Use a "for loop" by initializing i=0 with the condition i<l/2 and increment i.
5. Use "if" with the condition s[i]!=s[l-i-1].
6. Assign j=1.
7. Use break.
8. Use "if" with the condition j==0.
9. Print string is palindrome.

IV) Prime number verification
---

1. Declare 2 integer variables i.e. i, j and initialize j=11.
2. Use a "for loop" by initializing i=2 with the condition i<j and increment i.
3. Use "if" with the condition i%j==0.

4. Use break.
5. Use "if" with the condition i==j.
9. Print prime number.

V) Fibonacci series
---

1. Declare 5 integer variables i, j, k, l, m and initialize i=0 and j=1.
2. Assign m=i+j.
3. Get the number of terms from user i.e. k value.
4. Print the first two terms i and j.
5. Print 3rd to nth terms using "for loop" by initializing l=3 with the condition l<=k and pre-increment l.
6. Assign i=j.
7. Assign j=m.

VI) Basic calculator
---

1. Declare 3 integer variables i.e. i, j, k and initialize i=10 and j=20.
2. Declare a character l.
3. Print the options i.e. +, -, *, /.
4. Use "switch case" to check the options.
5. Perform the particular options conditions by declaring the cases.

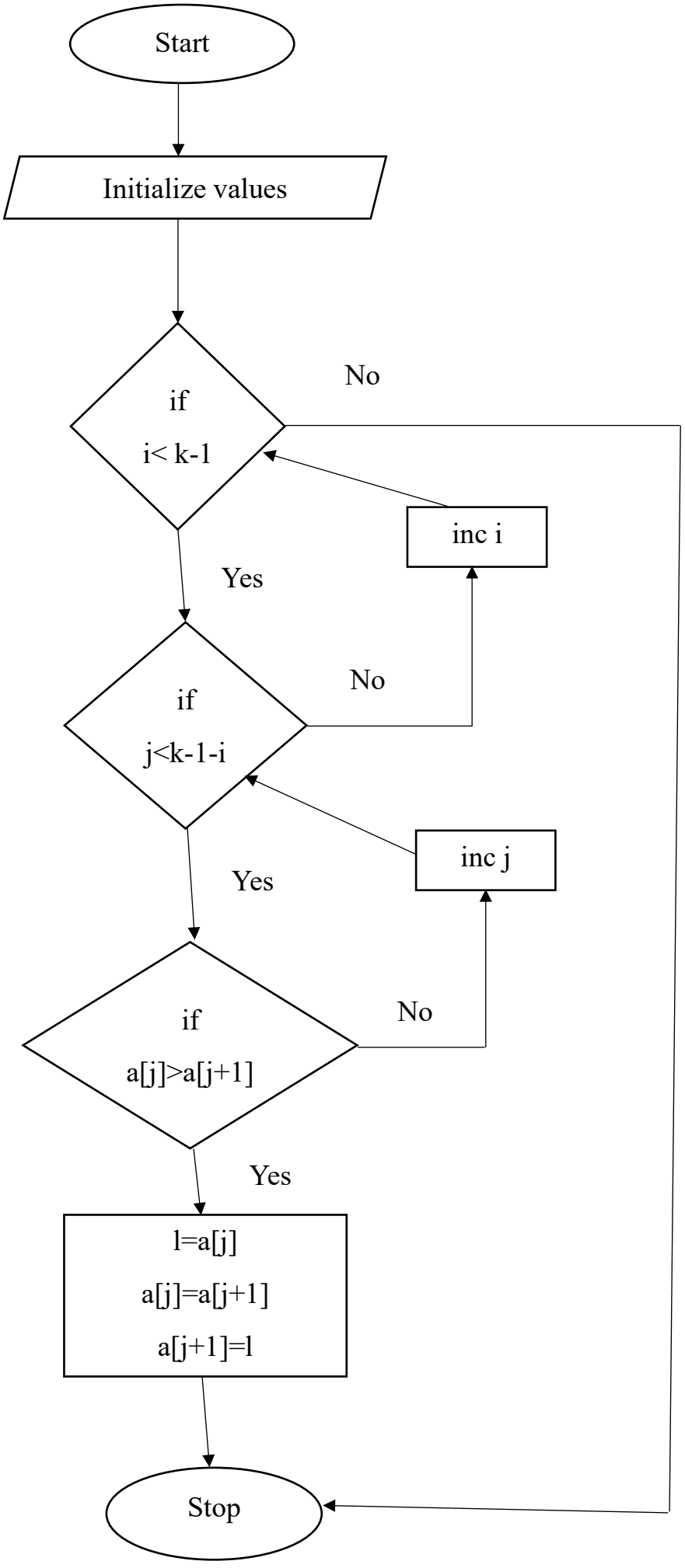
VII) Factorial calculation
---

1. Declare 3 integer variables i, j, k and initialize i=5 and k=1.
2. Use a "for loop" by initializing j=i with the condition j>=i and decrement j.
3. Assign k*j to k => k=k*j.

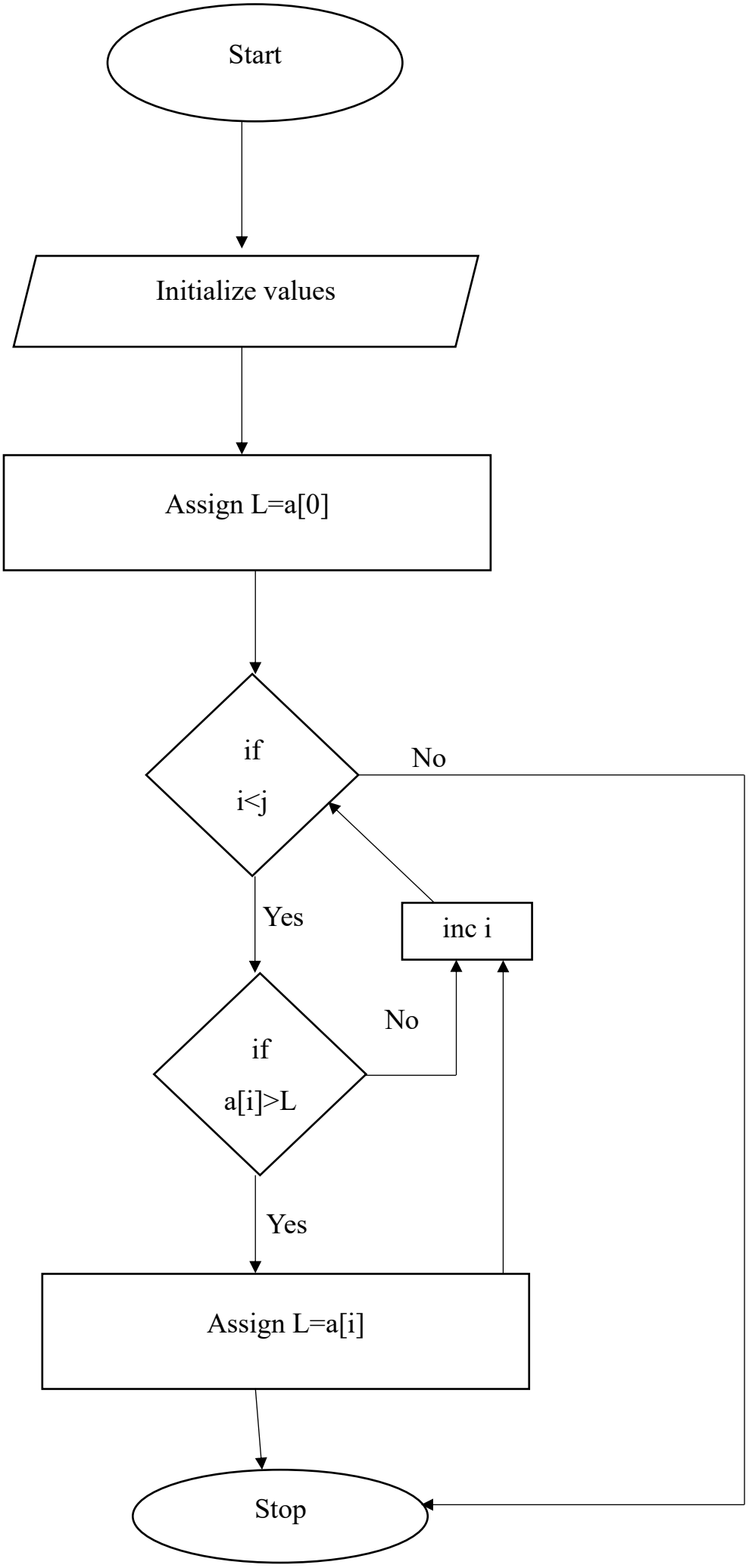
VIII) Count vowels in a string
---

1. Declare 2 integer variables i.e. i, v and initialize v=0.
2. Declare and initialize a character array of 20 elements i.e. s[20]="Wonderful".
3. Use a "for loop" by initializing i=0 with the condition s[i] and increment i.
4. Use "if" with the condition str[i]=='a'||
str[i]=='e'||str[i]=='i'||str[i]=='o'|| str[i]=='u'||str[i]=='A'||
   str[i]=='E'||str[i]=='I'||str[i]=='O' ||str[i]=='U'.
5. Increment v.
6. Print total count i.e. v.

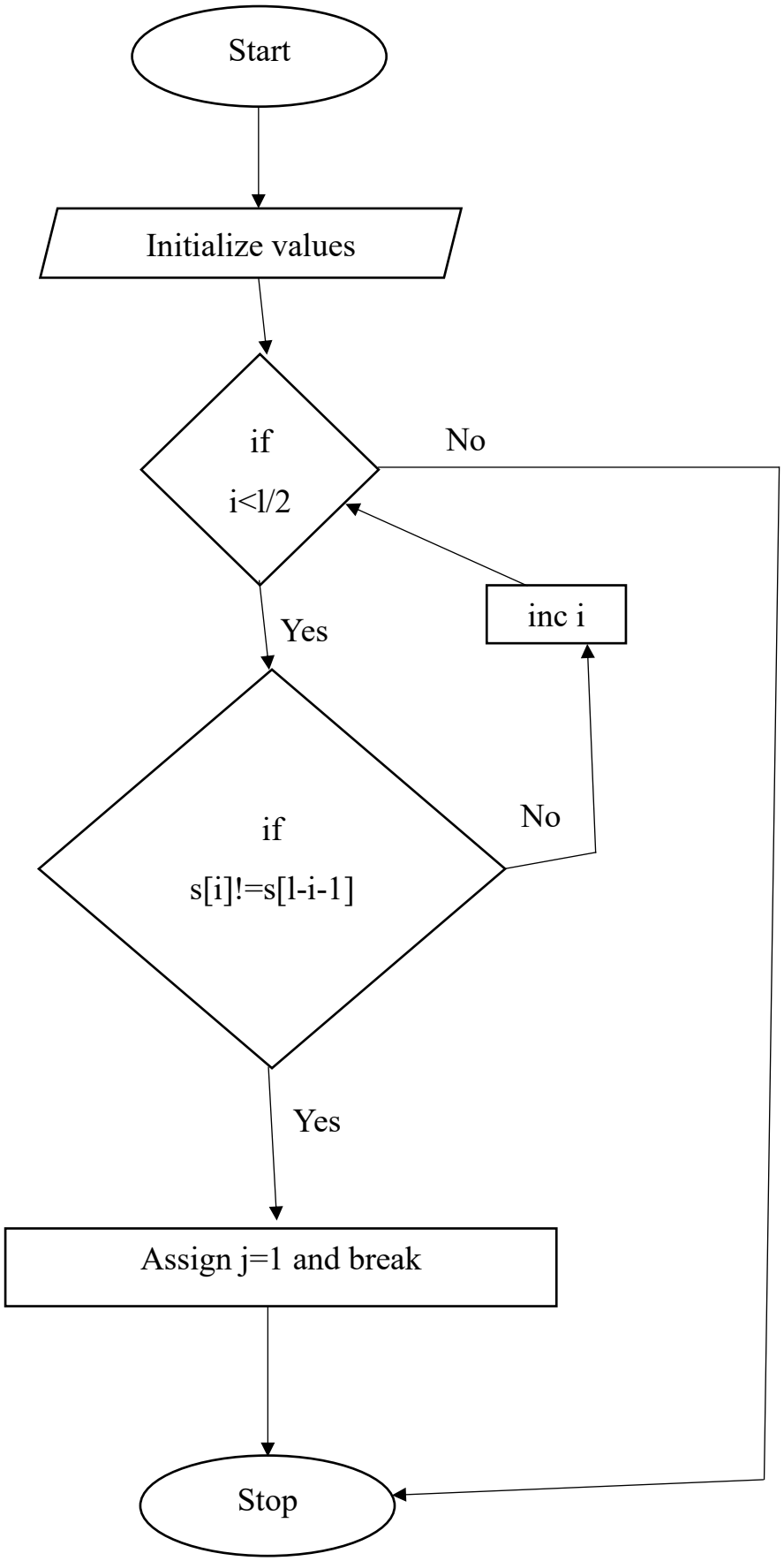
Bubble sort


Start
Initialize values
if
i< k-1
No
inc i
Yes
if
j<k-1-i
No
inc j
Yes
if
a[j]>a[j+1]
No
Yes
l=a[j]
a[j]=a[j+1]
a[j+1]=l
Stop

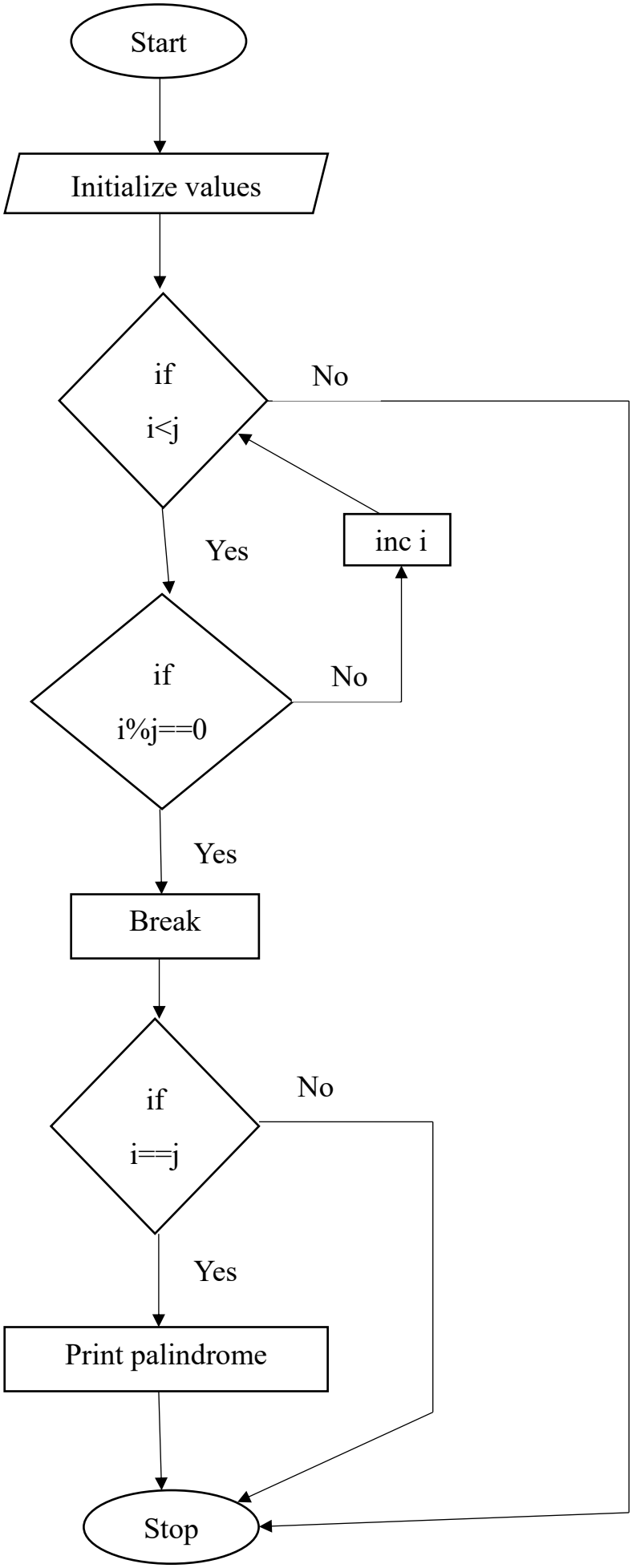
Largest number



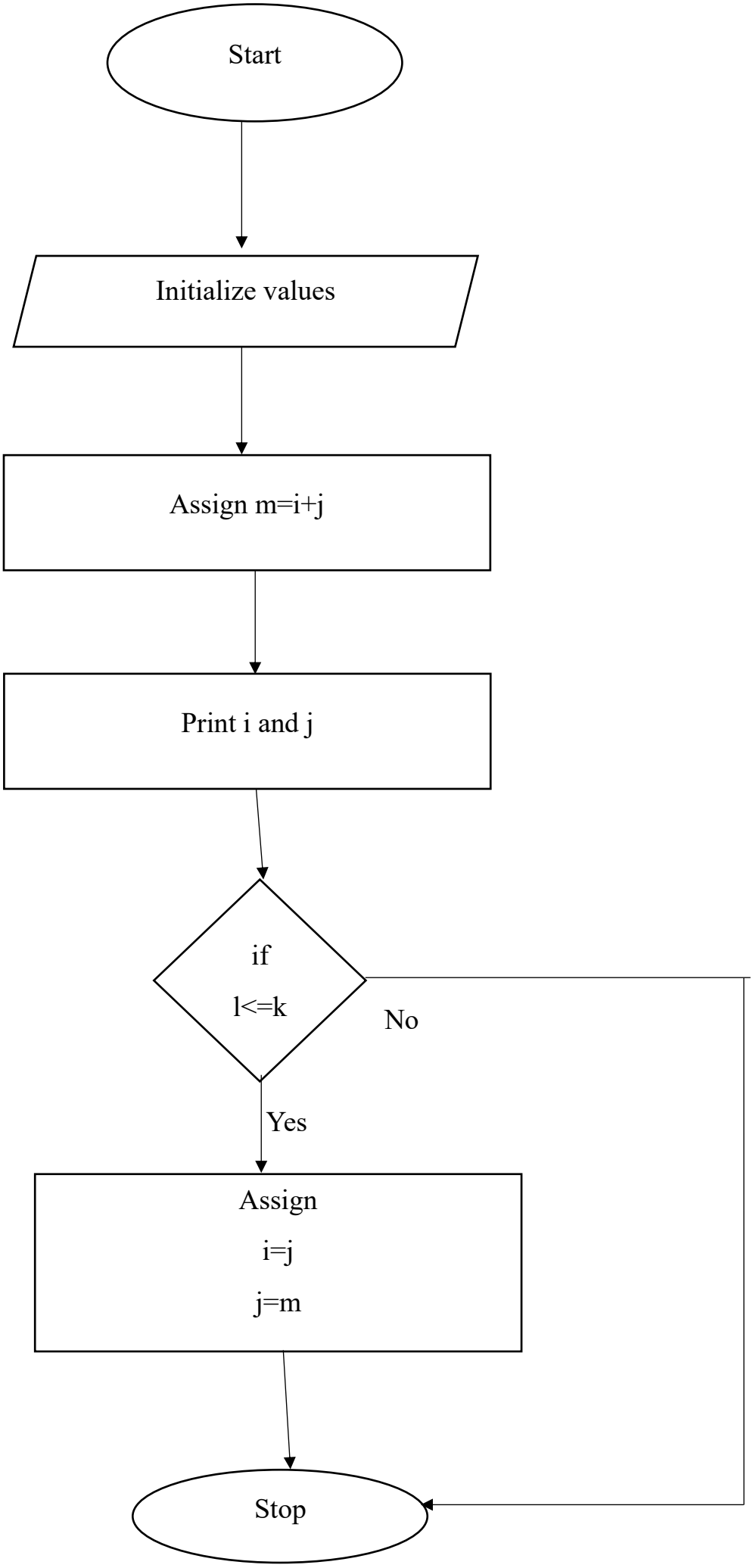
String palindrome



Prime number

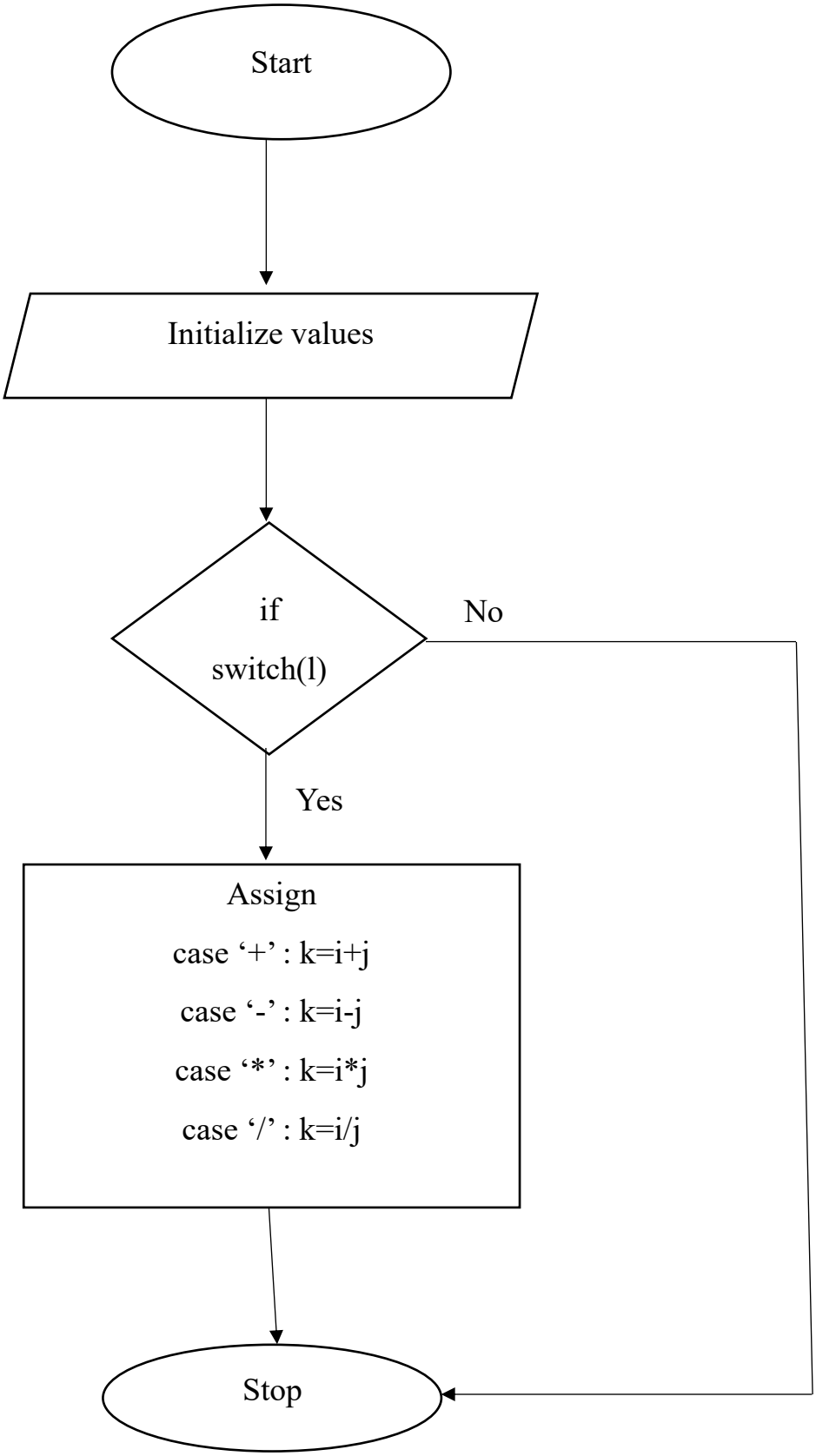


Fibonacci series

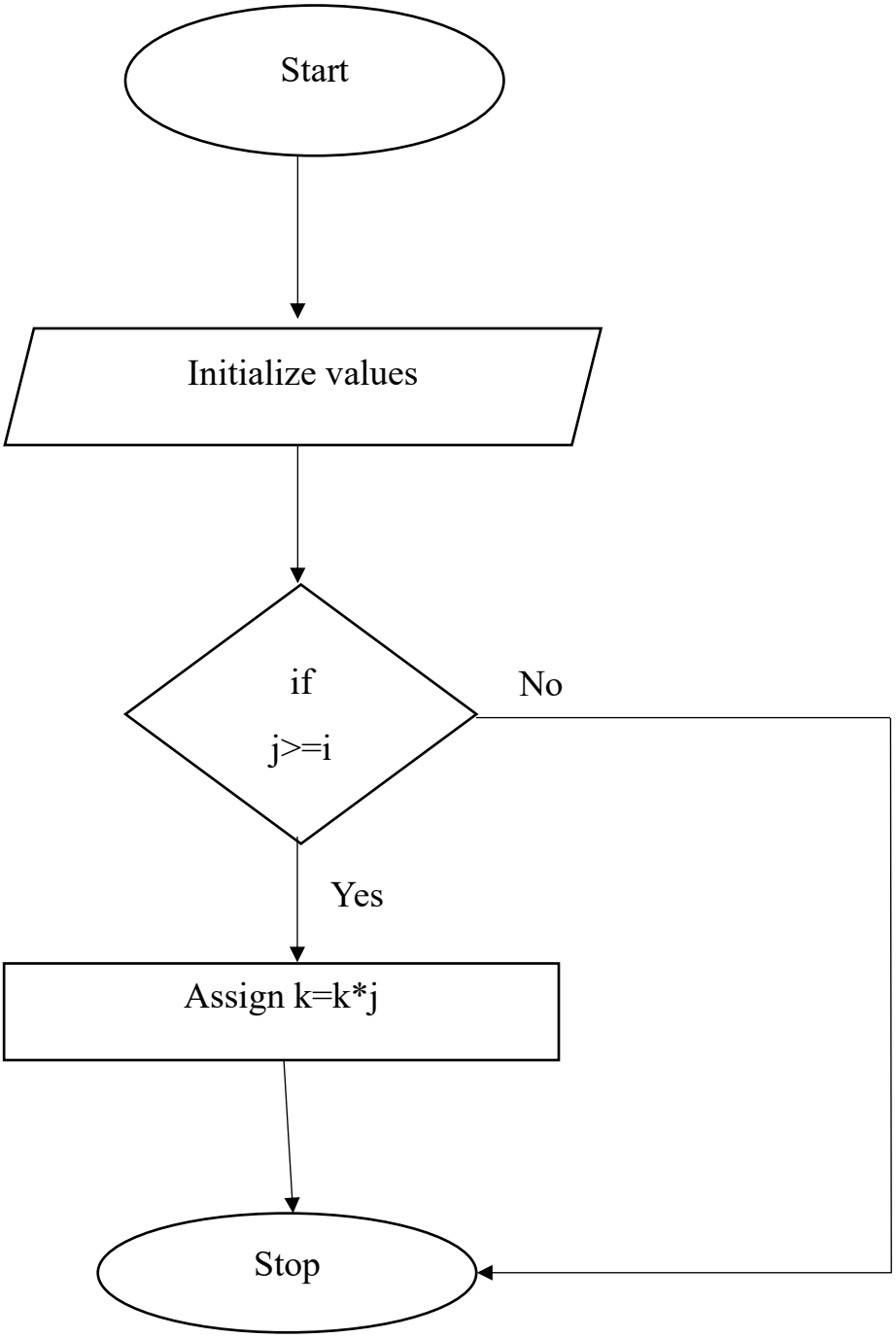


Basic

calucator



Factorial number



Count vowels