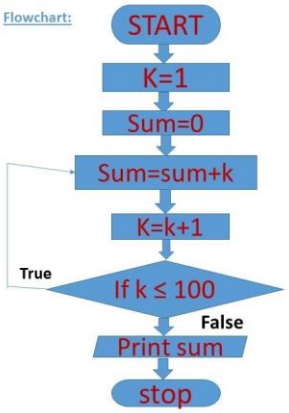
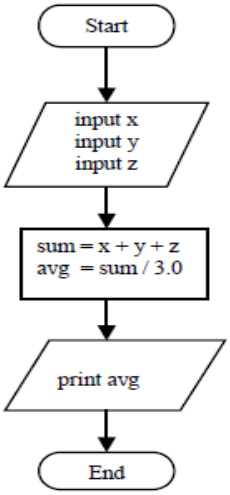
Flowchart:



Algorithm:

(i) Let k=1
(ii)Let sum=0
(iii)Calculate Sum=sum+k
(iv)Calculate k=k+1
(v)If k ≤ 100 goto step (iii)
(vi)Print the value of sum
(vii)stop

Average of 3 Numbers - sequence



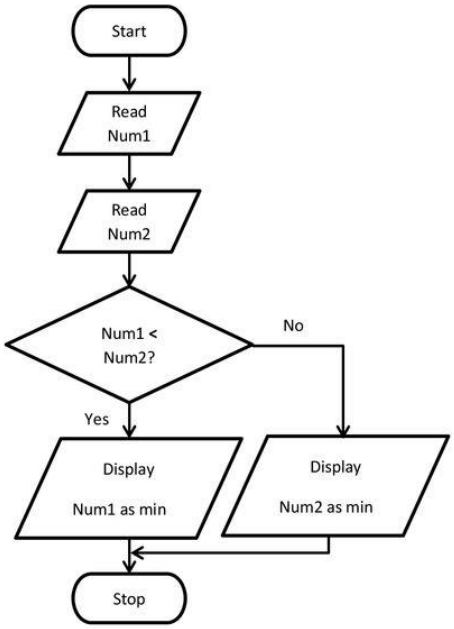

```
Begin
   input x
   input y
   input z
   sum = x + y + z
   avg = sum / 3.0
   print avg
End
```

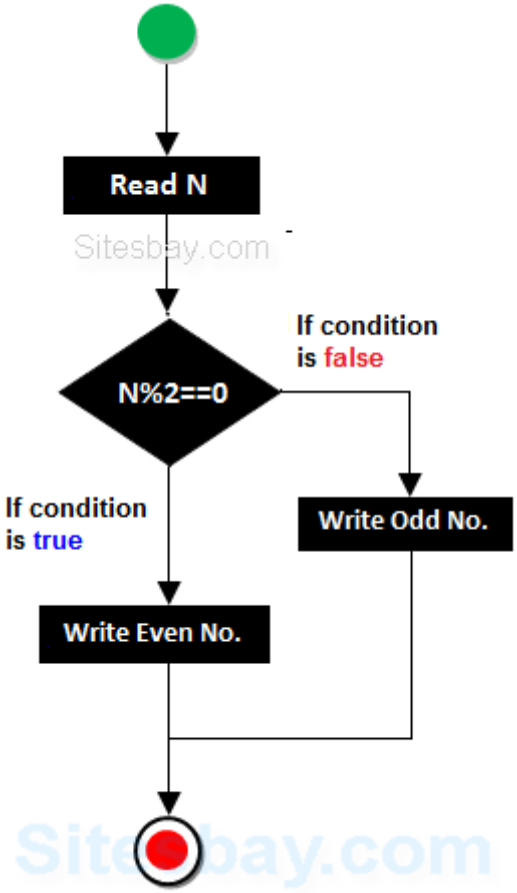
Algorithm to input two numbers and print the smaller number

1. **begin**
2. **get** num1
3. **get** num2
4. **if** num1 < num2
5. **then display** num1 as smaller
6. **else display** num2 as smaller
7. **end if**
8. **end**

What about:

1. The largest of two numbers?
2. The largest of three numbers?
3. The median of three numbers?






```
Step 1: Start
Step 2: Declare variables n, i, flag
Step 3: Initialize variables flag=1, i=2
Step 4: Read n from user
Step 5: If n<=1            // Any number below 1 is not prime
            Display "n is not a prime number"
            Goto step 7
Step 5: Repeat the steps until i<[(n/2)+1]
            5.1 If remainder of n divide i equals to 0,
                    Set flag=0
                    Goto step 6
            5.2 i=i+1
Step 6: If flag==0,
            Display "n is not prime number"
        Else
            Display "n is prime number"
Step 7: Stop
```

Example 4

- **Algorithm**:
- Step 1: Input a, b, c
- Step 2: $d \leftarrow \text{sqrt}\,(b \times b - 4 \times a \times c\ )$
- Step 3: $x1 \leftarrow (-b + d) / (2 \times a)$
- Step 4: $x2 \leftarrow (-b - d) / (2 \times a)$
- Step 5: Print $x1, x2$