

Tutorial 1

i) Average of first N numbers

Step 1 - Start

Step 2 - Declare n, avg, i, sum
initially

Step 3 - Input n

Step 4 - Set sum = 0, i = 0

Step 5 - Repeat Steps 6 to 7 until i > n

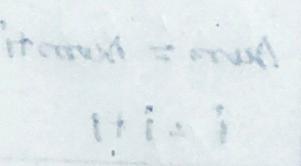
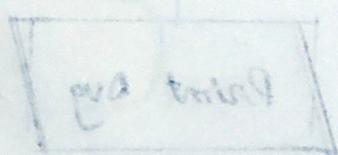
Step 6 - sum = sum + i

Step 7 - i = i + 1

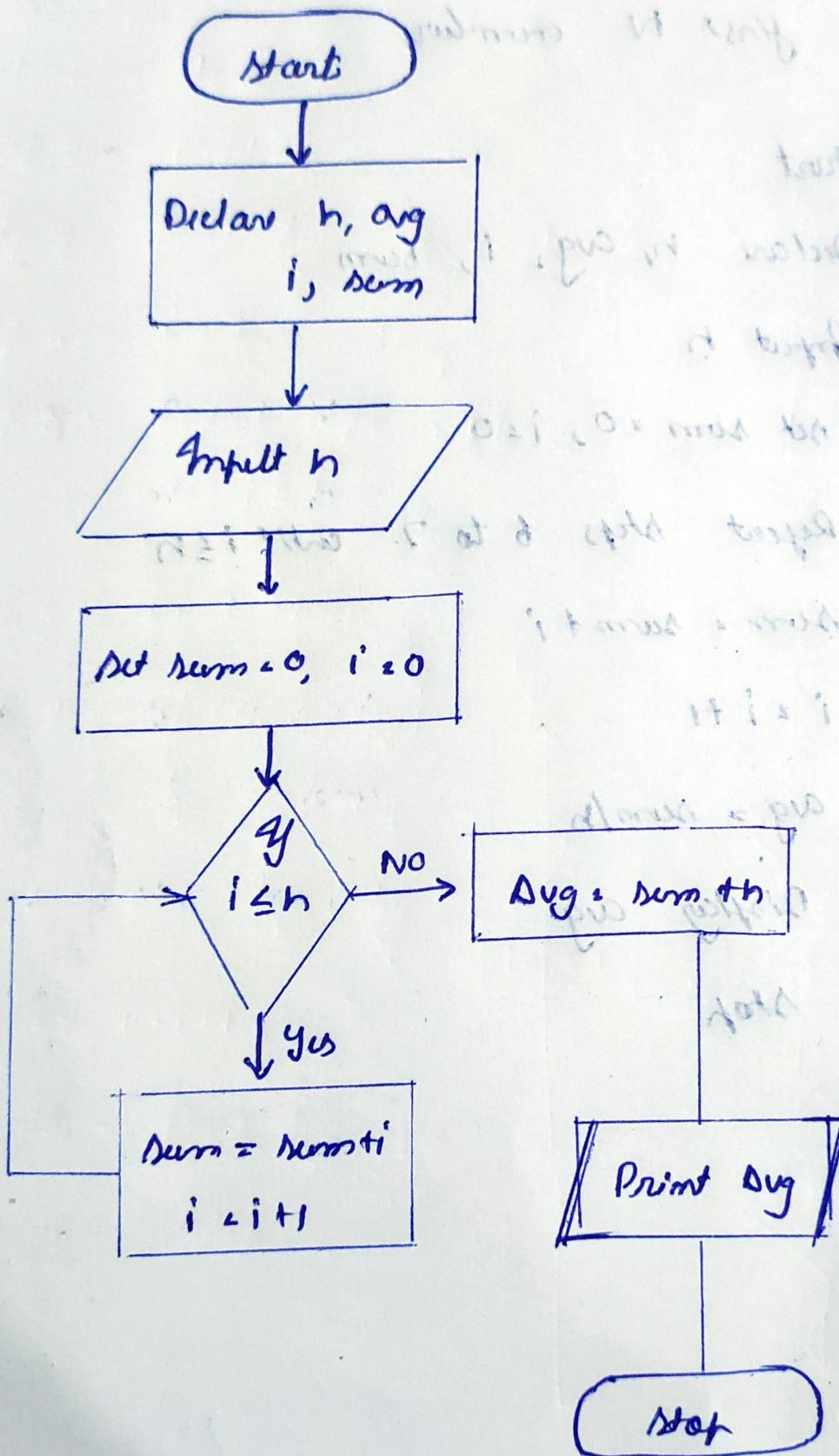
Step 8 - avg = sum/n

Step 9 - Display avg

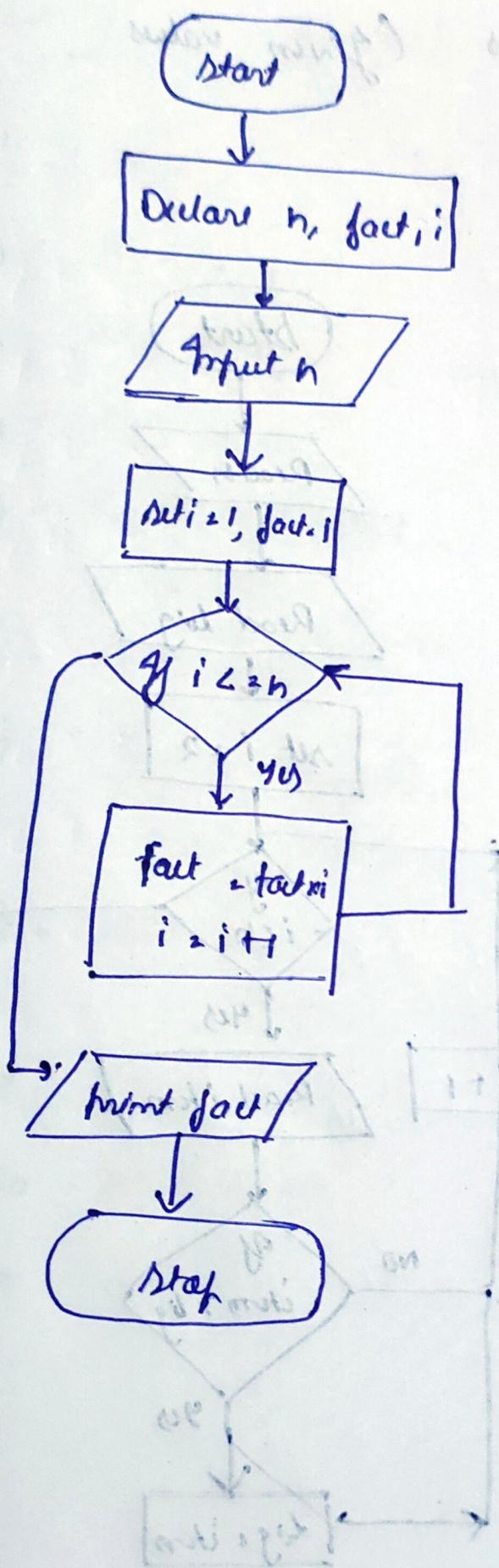
Step 10 - Stop



Flowchart



2.



Factorial of a Number

- Total - 10 Add
- Step 1 - Start & add
 - Step 2 - Declare n, fact, i
 - Step 3 - Input n
 - Step 4 - Set i = 1
 - Step 5 - if i <= n
repeat steps 6 to 7
until loop - 0 add
 - Step 6 - fact = fact * i
 - Step 7 - i = i + 1
 - Step 8 - print fact
 - Step 9 - Stop
- Total - 10 Add

Sort largest of N numbers (given values)

Step 1 :- Start

Step 2 - Read n

Step 3 - Read big

Step 4 - i = 2

Step 5 - Repeat Steps 6-8 until $i \leq n$

Step 6 - Read item

Step 7 - If ($item > big$)

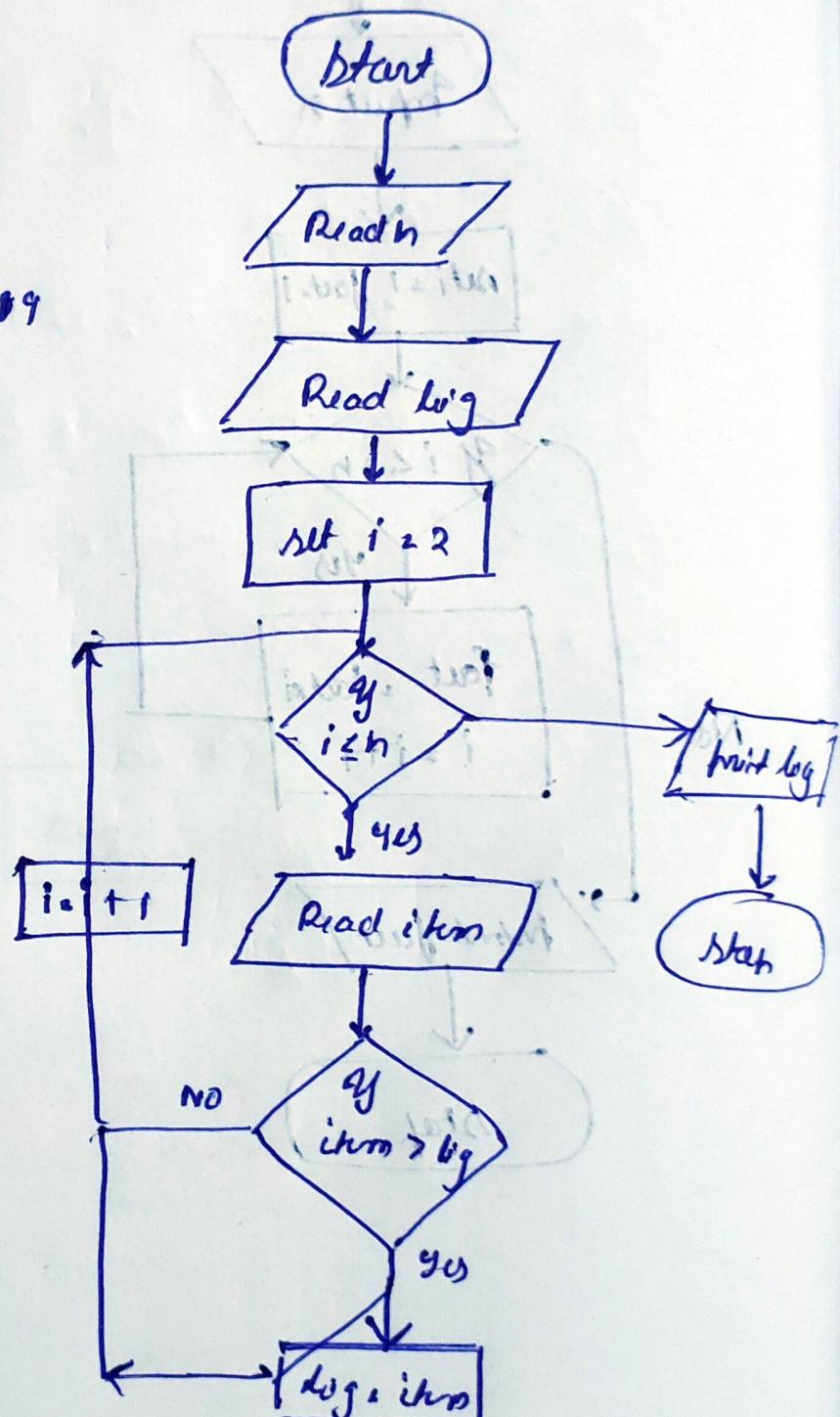
 big = item

Step 8 - else $big > big$

Step 9 - $i = i + 1$

Step 10 - Print big

Step 11 - Stop



smallest of n members

Step 1 - Start

Step 2 - Read n

Step 3 - Read small

Step 4 - set i = 2

Step 5 - Repeat steps 6 to 9
until $i \leq n$

Step 6 - Read item

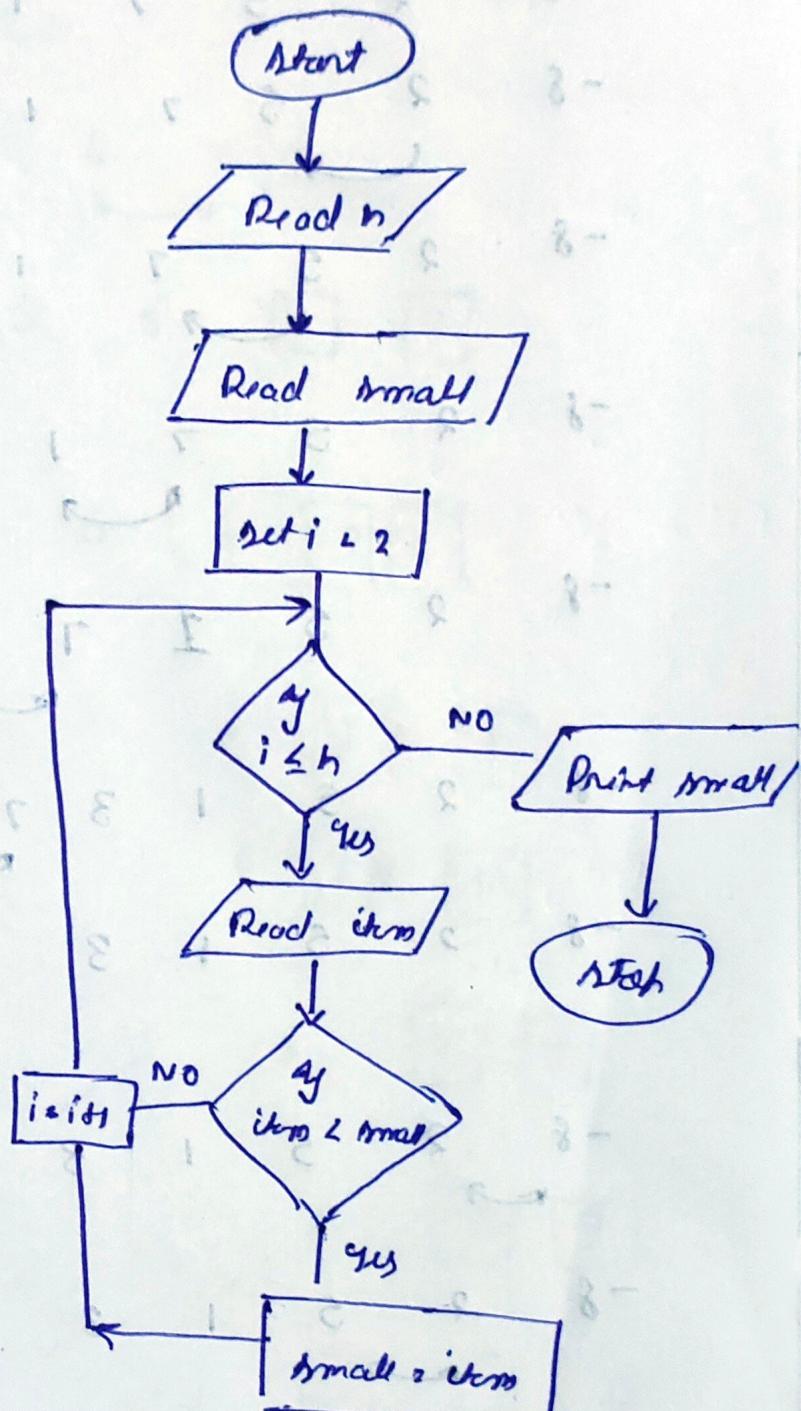
Step 7 - if ($\text{item} < \text{small}$)
 $\text{small} = \text{item}$

Step 8 - else $\text{small} =$
 small

Step 9 - $i = i + 1$

Step 10 - print small

Step 11 - Stop



5.

Ans. Sort the following numbers in ascending and descending

1)

-8

2

5

7

1

3

6

9

-8

2

5

7

1

3

6

9

-8

2

5

7

1

3

6

9

-8

2

5

7

1

3

6

9

-8

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7

3

6

9

-8

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5

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3

6

7

9

-8

2

5

1

3

6

7

9

-8

2

5

1

3

6

7

9

-8

2

5

1

3

6

7

9

Normal ticket

of A.M.

Note

B.M.

-8 2 1 5 3 6 7 **9**

-8 2 1 3 8 5 6 7 9

-8 2 1 3 5 6 7 9

-8 2 1 3 5 6 7 **9**

-8 2 1 3 5 6 **7** **9**

-8 2 1 3 5 6 **7** **9**

-8 1 2 3 5 6 **7** **9**

-8 1 2 3 5 6 **7** **9**

-8 1 2 3 5 6 **7** **9**

-8 1 2 3 **5** **6** **7** **9**



-8 ↗ 1 ? 3 [5] [6] [7] [8] [9]

-8 ↗ 1 ↘ 2 3 [5] [6] [7] [8] [9]

-8 ↗ 1 ↗ 2 ↗ 3 [5] [6] [7] [8] [9]

-8 ↗ 1 ↗ 2 [3] [5] [6] [7] [8] [9]

-8 ↗ 1 ↗ 2 [3] [5] [6] [7] [8] [9]

-8 ↗ 1 ↗ 2 [3] [5] [6] [7] [8] [9]

-8 ↗ 1 [2] [3] [5] [6] [7] [8] [9]

[-8] [1] [2] [3] [5] [6] [7] [9]

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Descending

-8 2 3 7 1 3 6 9

2 -8 5 7 1 3 6 9

2 5 -8 7 1 3 6 9

2 5 7 -8 1 3 6 9

2 5 7 1 -8 3 6 9

2 5 7 1 3 -8 6 9

2 5 7 1 3 6 -8 9

2 5 7 1 3 6 9 -8

5 2 7 1 3 6 9 -8

5 7 2 1 3 6 9 -8

$$5 \ 7 \ 2 \ 1 \ 3 \ 6 \ 9 \quad -8$$

↑

$$5 \ 7 \ 2 \ 3 \ 1 \ 6 \ 9 \quad -8$$

↑

$$5 \ 7 \ 2 \ 3 \ 6 \ 1 \ 9 \quad -8$$

↑

$$5 \ 7 \ 2 \ 3 \ 6 \ 9 \quad 1 \quad -8$$

↑

$$7 \ 3 \ 2 \ 3 \ 6 \ 9 \quad 1 \quad -8$$

↑

$$7 \ 5 \ 2 \ 3 \ 6 \ 9 \quad 1 \quad -8$$

↑

$$7 \ 5 \ 3 \ 2 \ 6 \ 9 \quad 1 \quad -8$$

↑

$$7 \ 5 \ 3 \ 6 \ 2 \ 9 \quad 1 \quad -8$$

↑

$$7 \ 5 \ 3 \ 6 \ 9 \quad 2 \quad 1 \quad -8$$

↑

$$7 \ 5 \ 3 \ 6 \ 9 \quad 2 \quad 1 \quad -8$$

↑

7 5 3 6 9 2 1 -8
↙ ↗

7 5 6 3 9 2 1 -8
↙ ↗

7 5 6 9 3 2 1 -8
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7 5 6 9 3 2 1 -8
↙ ↗

7 6 5 9 3 2 1 -8
↙ ↗

7 6 9 5 3 2 1 -8
↙ ↗

7 6 9 5 3 2 1 -8
↙ ↗

7 9 6 5 3 2 1 -8
↙ ↗

9 7 6 5 3 2 1 -8