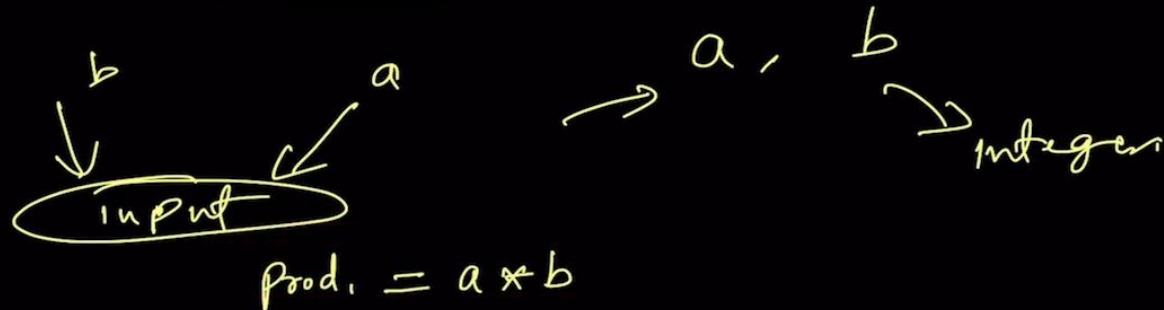


Multiply two numbers

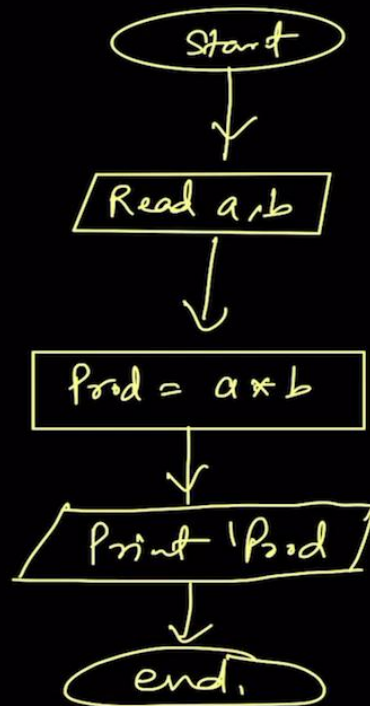


eg.: ① $a = 2$ & $b = 5$
 $\text{Prod} = 2 * 5 = 10$

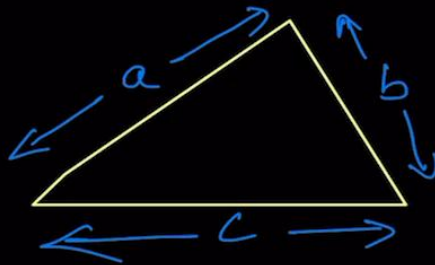
② $a = -3$ & $b = 10$
 $\text{Prod} = -3 * 10 = -30$

③ $a = -4$ & $b = -3$
 $\text{Prod} = (-4) * (-3) = +12$

Flowchart



Find Perimeter of a Triangle

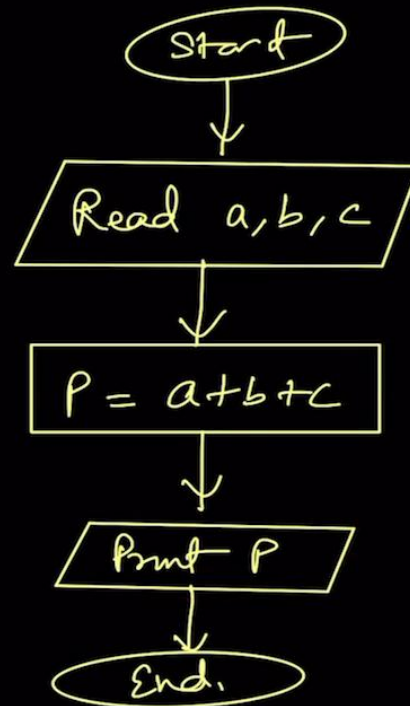


$$\text{Perimeter} = a + b + c$$

eg. $a = 10\text{cm}$ & $b = 20\text{cm}$ & $c = 30\text{cm}$.

$$\begin{aligned}\text{Perimeter} &= (10 + 20 + 30) \\ &= \boxed{60\text{cm}} \checkmark\end{aligned}$$

Flowchart



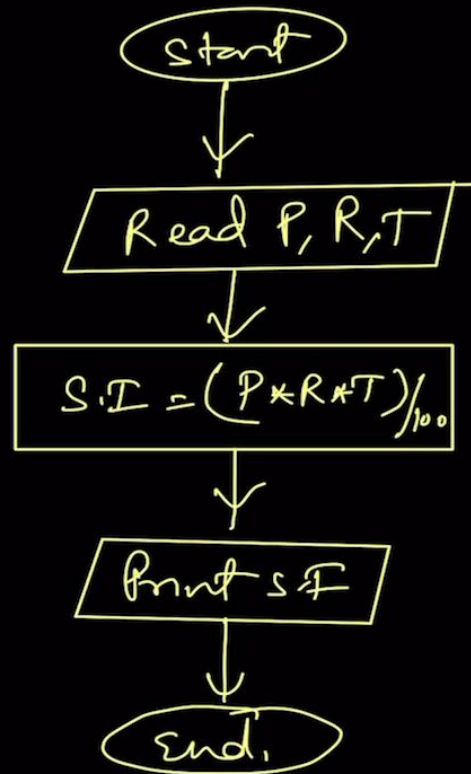
Find simple interest

$$S.I \Rightarrow \frac{P \times R \times T}{100}$$

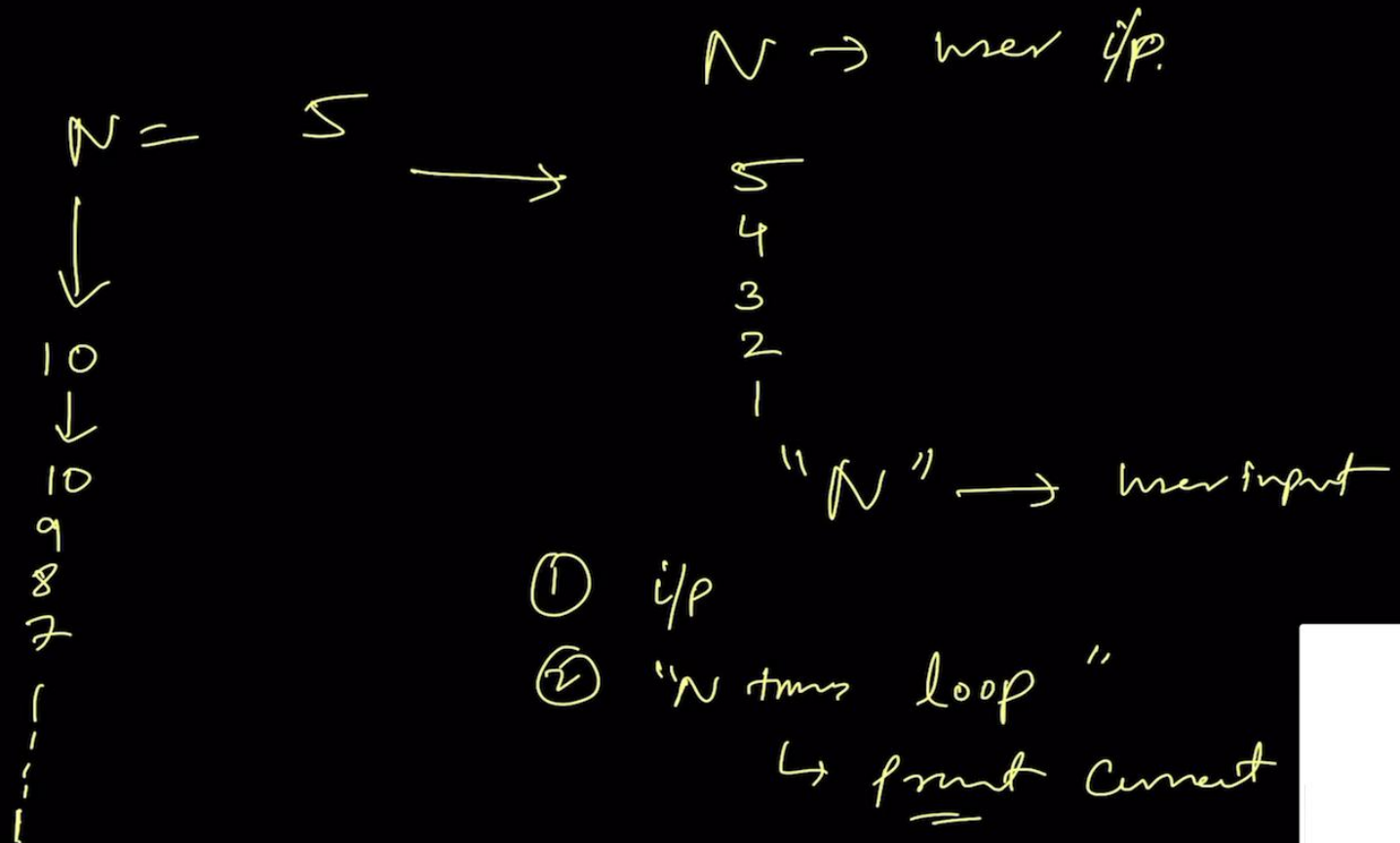
eg: $P = ₹10$, $R = 10\%$, $T = 1 \text{ year}$.

$$S.I = \frac{10 \times 10 \times 1}{100} = 1$$

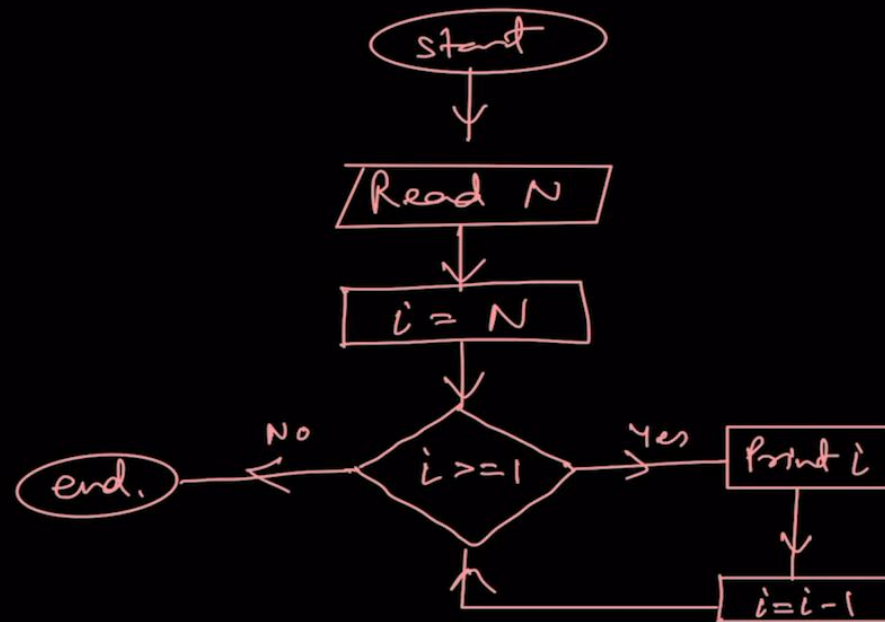
Flowchart



Print counting from N to 1



Flowchart



Find factorial of a number.

$$\text{factorial} \rightarrow N! \\ \downarrow \\ N * (N-1) * (N-2) * (N-3) \dots * 1$$

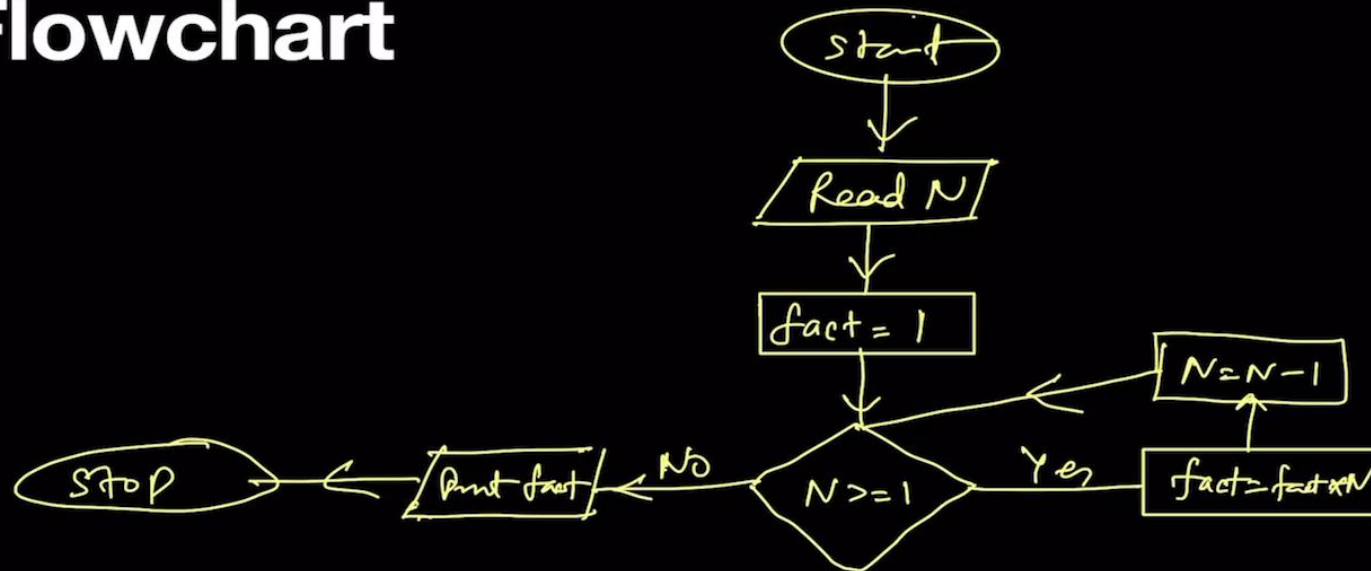
eg. $N = 5$

$$\rightarrow 5! = 5 * 4 * 3 * 2 * 1 \\ = 120$$

$N = 3$

$$\rightarrow 3! = 3 * 2 * 1 \\ = 6$$

Flowchart



$$N = 5$$

$$\text{fact} = 1$$

$$\begin{aligned} \textcircled{1} \text{ fact} &= 1 \times 5 = 5 \\ N &= N - 1 = 5 - 1 \\ &= 4 \end{aligned}$$

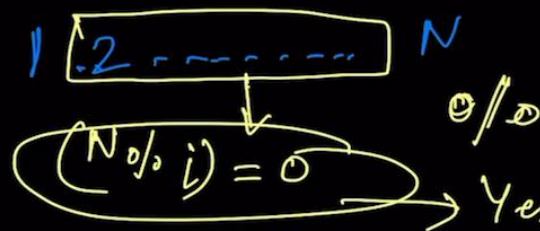
$$\begin{aligned} \textcircled{2} \text{ fact} &= 5 \times 4 \\ &= 20 \\ N &= N - 1 = 3 \end{aligned}$$

$$\begin{aligned} \textcircled{3} \text{ fact} &= 20 \times 3 \\ &\vdots \\ &\vdots \end{aligned}$$

$$120 \leftarrow (5 \times 4 \times 3 \times 2 \times 1)$$

Check a number is Prime or not.

i/p = N

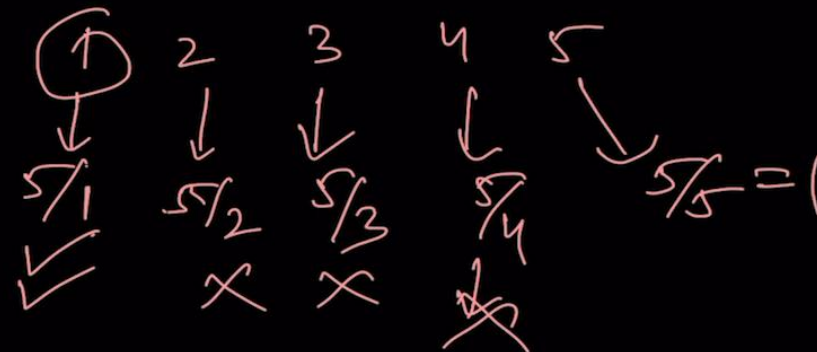


eg. $5 \rightarrow 1 \neq 5$

Prime no. ??

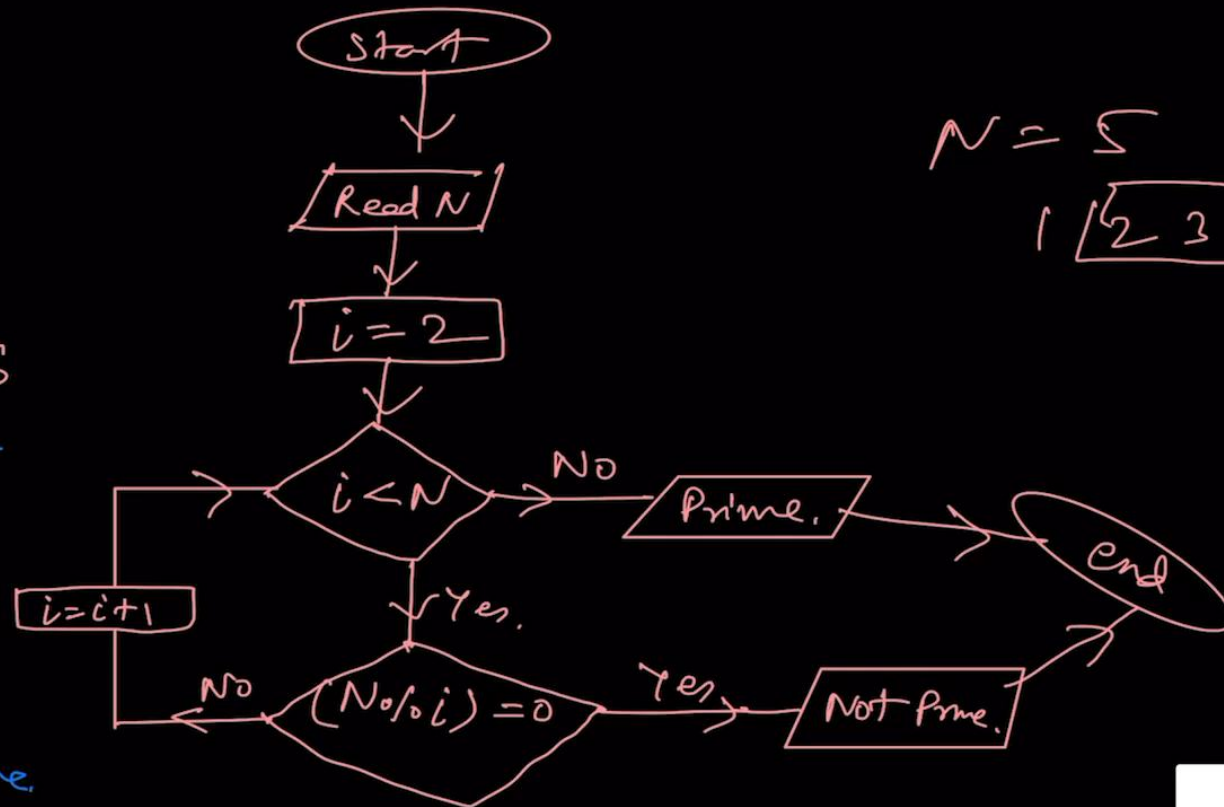
N prime \Rightarrow Exactly two factors

- \rightarrow ① 1
- \rightarrow ② N



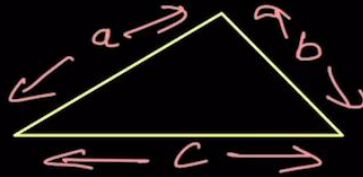
Flowchart

eg. $N = 6$
1 2 3 4 5 6
 $i = 2 \dots 5$
 \downarrow
 $(6 \% 2) = 0$
 \downarrow
Not a prime.



$N = 5$
1 2 3 4 5

Check given Triangle is valid or not



Mathematically \rightarrow $(\text{two sides}) > \text{other side}$.

$$(a+b) > c$$

$$(b+c) > a$$

$$(a+c) > b$$

eg. $a = 1, b = 3, c = 0$

$$a+b \Rightarrow 4 > 0 \checkmark$$

$$3+0 = 3 > 1$$

$$1+0 = 1 > 3 \text{ } \times$$

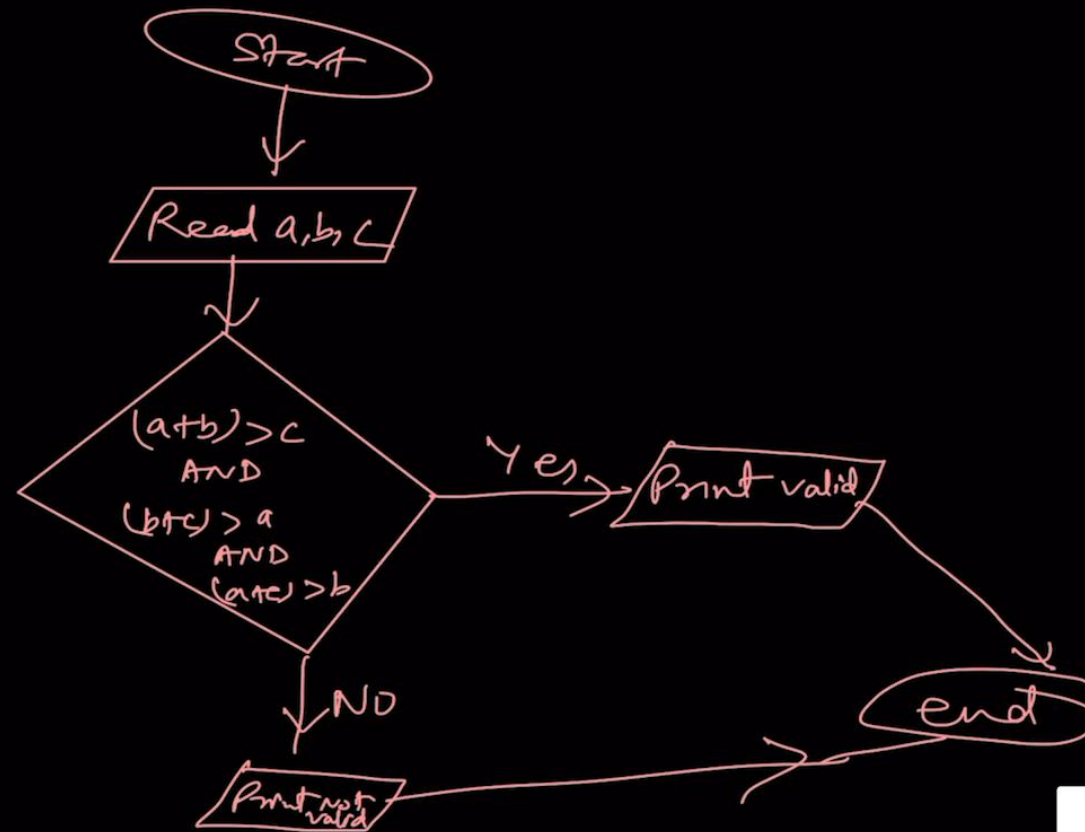
eg. (2) $a = 10, b = 20, c = 20$

$$\textcircled{1} \quad 30 > 20$$

$$\textcircled{2} \quad 40 > 10$$

$$\textcircled{3} \quad 30 > 20$$

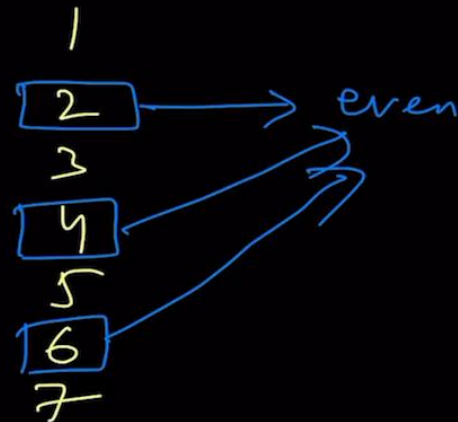
Flowchart



Print only even number from 1 to N

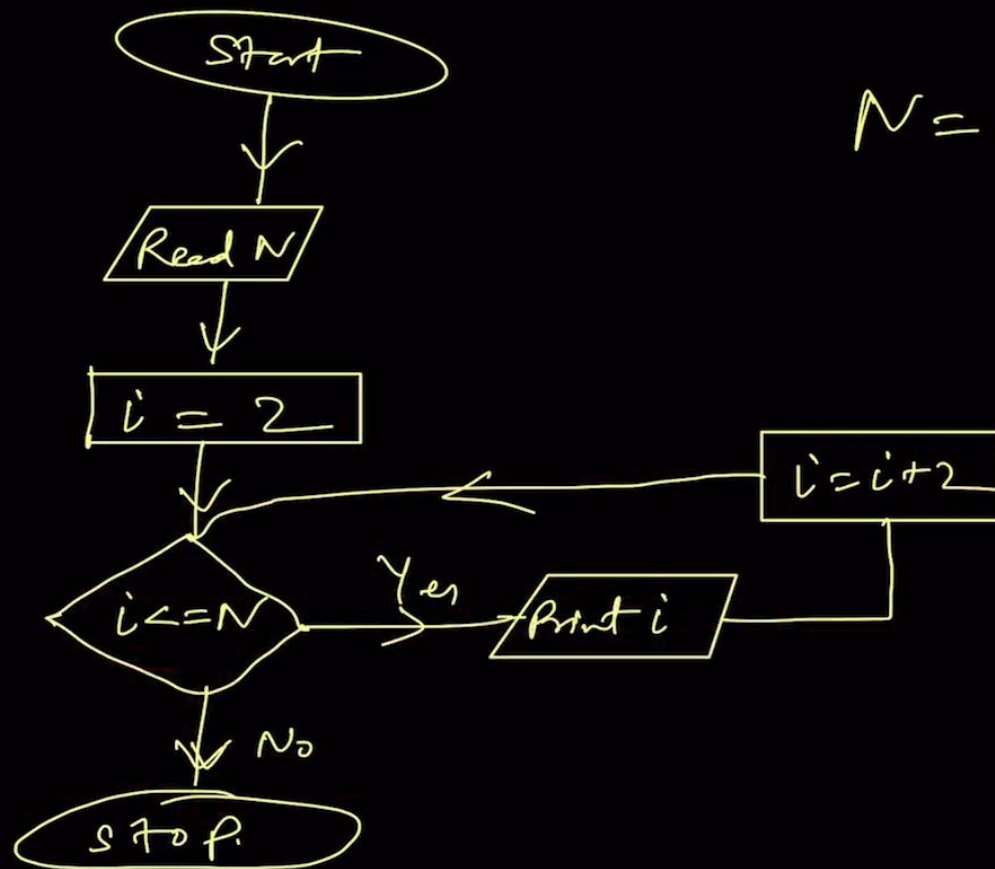
\Rightarrow max $i/p = N$

even \Rightarrow



$i = 2 \rightarrow$ $i \leq N \rightarrow$ Print i
else $i = i + 2$

Flowchart



Print maximum of three numbers

→ $arr \rightarrow$ a, b, c

Max. $a?$ $b?$ $c?$

eg. 2, 3, 1
 ↓ ↓ ↓
 a b c

↘

$$a > b? \rightarrow a > c? \rightarrow a \checkmark$$

↓
b → (b > c) ? → Print b
↓
Print c

Flowchart

eg ① a, b, c
1, 0, -1

② a, b, c
2, 19, 16

③ a, b, c
2, 16, 20

