Q1. Given a number 'N', count all prime no less than or equal to 'N'.

Start

Input N

count = 0
i = 2

i <= N   F

T

bool flag = 1
div = 2

i++

div <= sqrt(i)   F

if
(flag == 1)   T   count++

F

T

if
(i% div == 0)   T   flag = 0   break

F

div++

Print "count"

End

Date ....
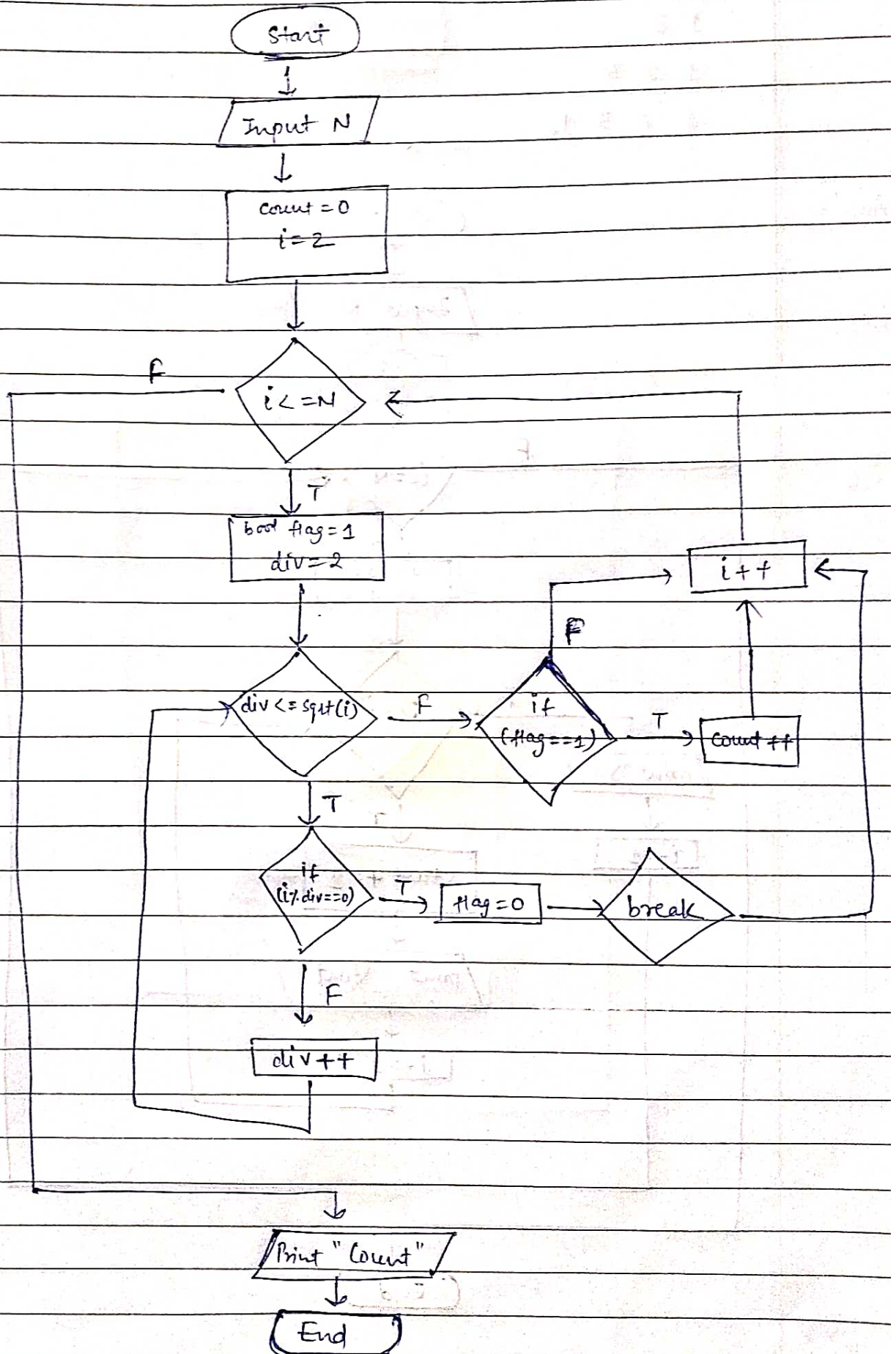
Q2. Draw ~~Make~~ the flowchart for the given pattern :-

```
1
1 2
1 2 3
1 2 3 4.
```

Ans :-

(Start)

↓

/ Input N /

↓

| i = 1 |

↓

F ← ◇ i<=N ◇ ←

↓ T

| int j = 1 , start = 0 |

↓

F ← ◇ j<=i ◇ ←

/ print "\n" /   ↓ T

↓ | start += 1 |

| i += 1 | ↓

                     / print " start " /

                       ↓

                     | j += 1 |

↓

(End)

Date ....
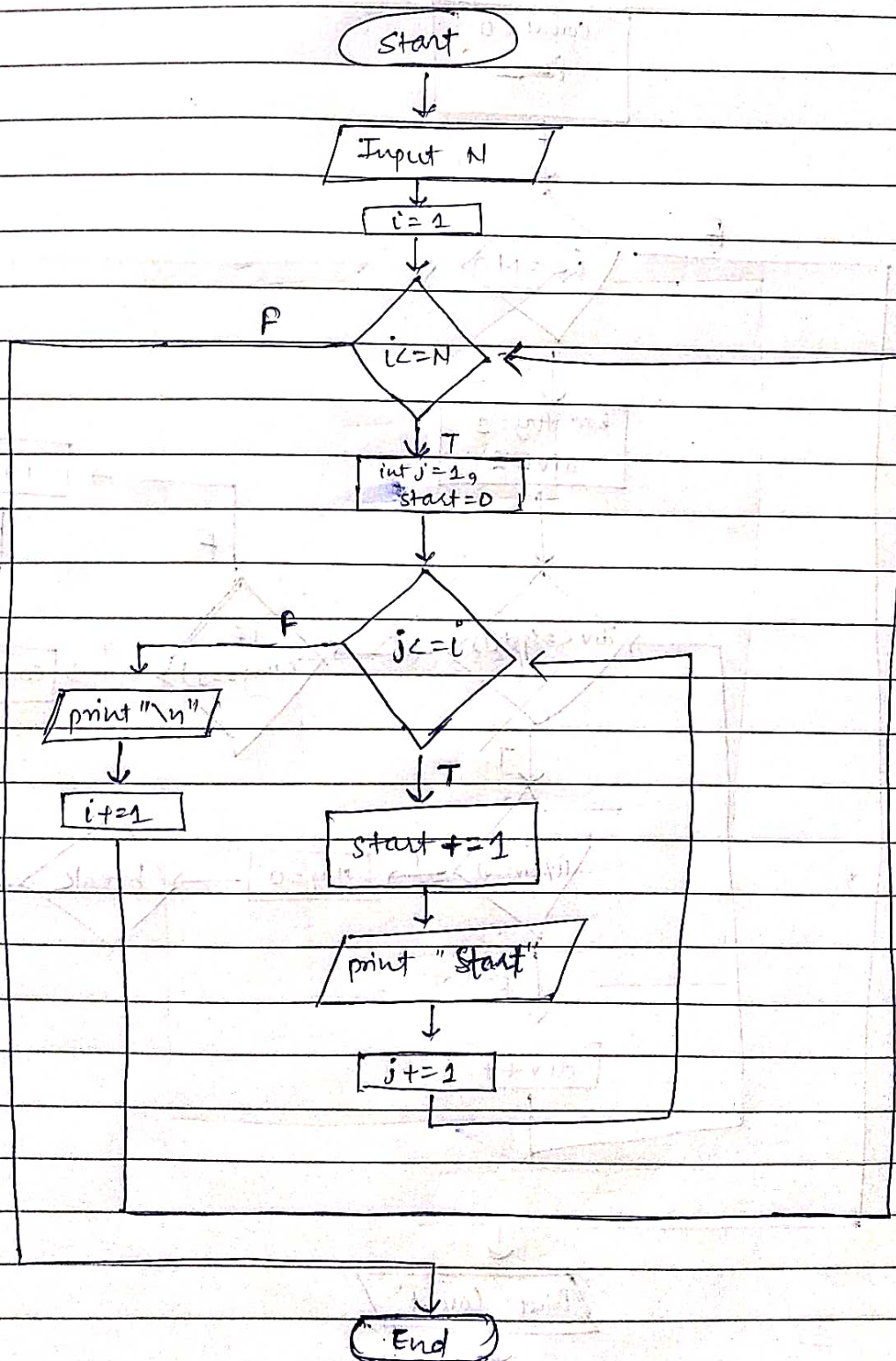
Q3. Given N and R, you have to print ^NC_R, where $^NC_R = \dfrac{N!}{R! \, (N-R)!}$

Ans:→

Start

↓

Input 'N and R'

↓

int M = N-R

ans $= \dfrac{fect(N)}{fect(R) \times fect(m)}$

↓

Print "ans"

↓

End

fect(N)

↓

int f=1, i=1

↓

i <= N

F → return fact(N)

T ↓

f* = i

↓

i++
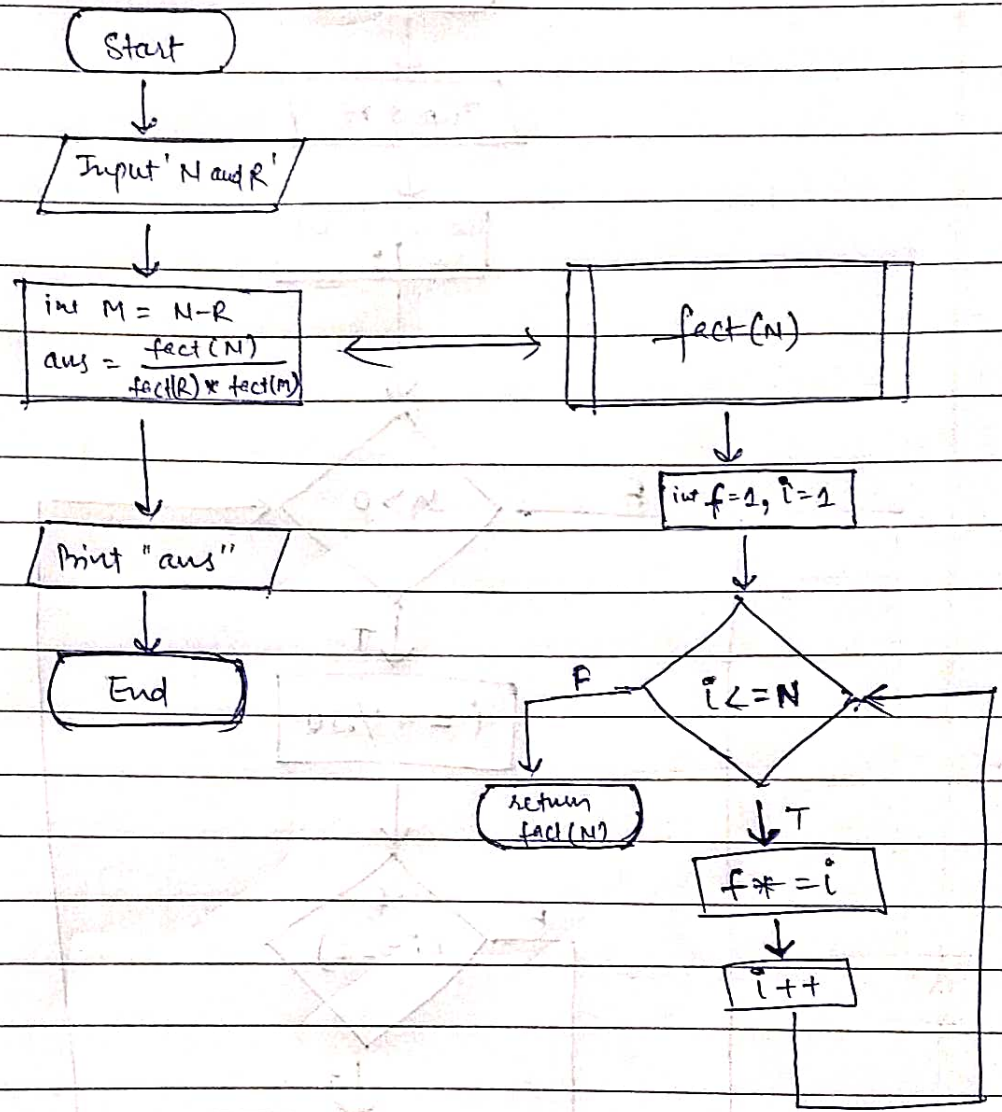
Qy. Given an number 'N', you have to count no. of 2's in it.

Ans'→

```
          ┌──────────┐
          ( Start    )
          └────┬─────┘
               ↓
        ┌──────────────┐
        / Input 'N'    /
        └──────┬───────┘
               ↓
        ┌──────────────┐
        │ int count = 0; │
        │ int i;        │
        └──────┬───────┘
               ↓
             ◇ ◇
     F   ◇         ◇
  ←──────◇  n > 0   ◇←──────
         ◇         ◇
             ◇ ◇
               ↓ T
        ┌──────────────┐
        │ i = n %.10   │
        └──────┬───────┘
               ↓
             ◇ if ◇
     F   ◇         ◇
  ←──────◇ (i == 2) ◇
         ◇         ◇
             ◇ ◇
               ↓ T
        ┌──────────────┐
        │ count ++     │
        └──────┬───────┘
               ↓
        ┌──────────────┐
        │ 'n/ = 10     │←────
        └──────────────┘
               ↓
        ┌──────────────┐
        / Print count  /
        └──────┬───────┘
               ↓
          ┌──────────┐
          ( End      )
          └──────────┘
```