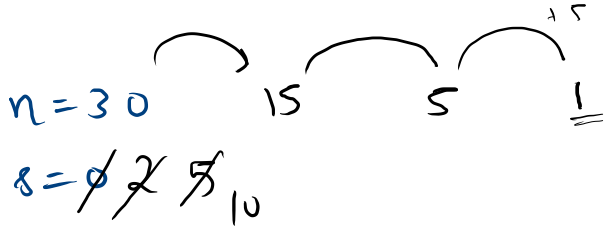
Space complexity.

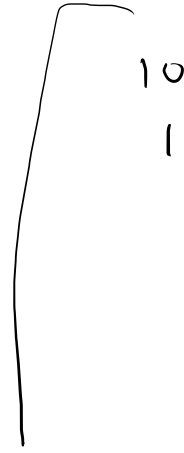
Que.

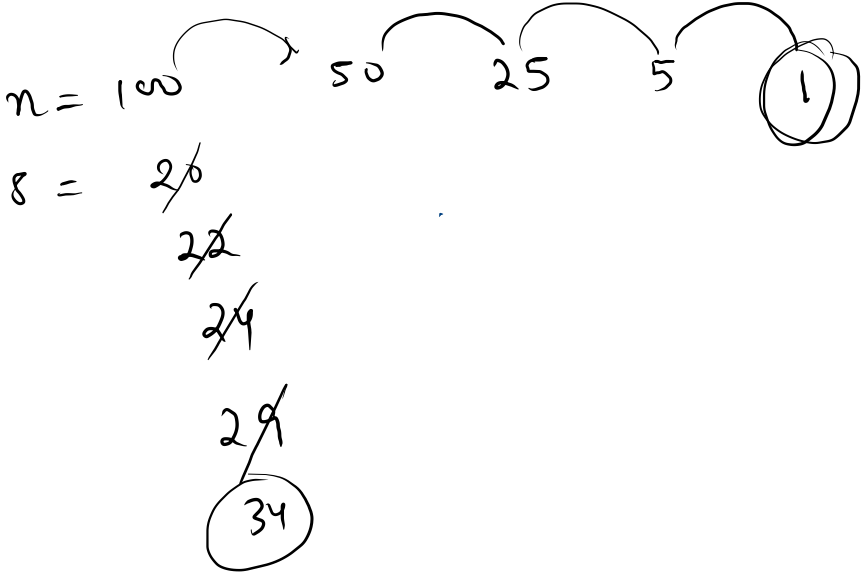
diff double / float.

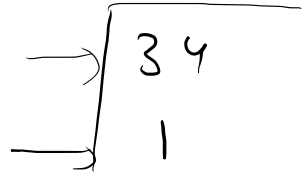
dTypes.

Divide n by 2 3 5 and tell steps



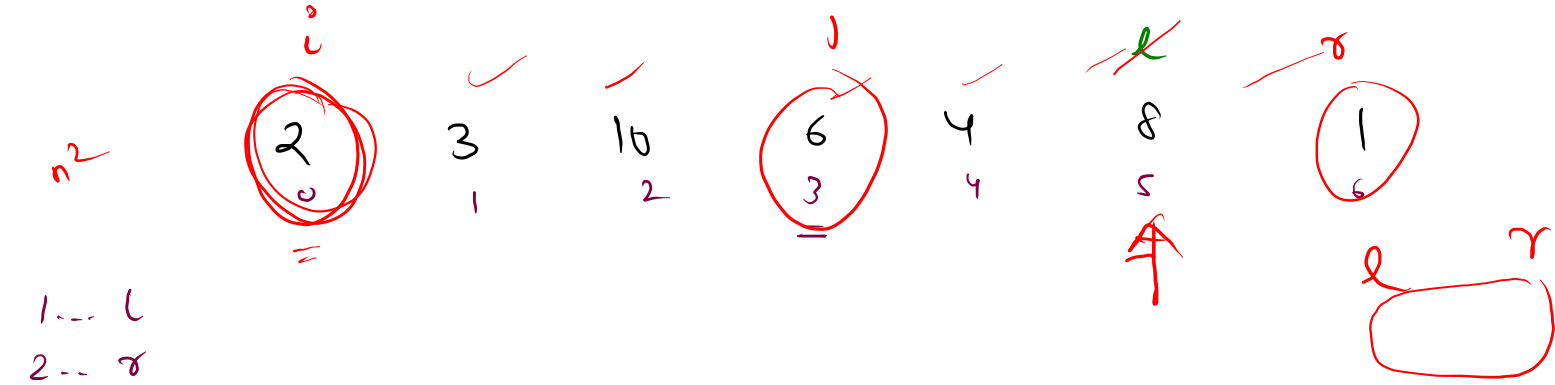






Max. diff b/w 2 numbers.

d = 8 ~~1~~ 8



mtn = 2

d r

2 3 10 6 4 8 1

d = ∅

8

O(n).

6 - 3
6 - 10
6 - 2 = 4

r - l
3 - mtn = 1
10 - 2 = 8
6 - 2 = 4
4 - 2 = 2

mtn = 1

2 3 1 10 4 12

d = 10

r - l

A[i] - mtn

3 - 2 =

1 - 1 = 0

10 - 1 = 9

4 - 1 = 3

12 - 1 = 11

d = 11

1 < 2

3 4 2 10 6 12

↓

d = ~~8~~ 10

min = ~~3~~ 2

4 - 3 = 1

2 - 2 (2 - 3)

10 - 2 = 8

6 - 2 = 4

12 - 2 = 10

Small Ques. [1 , N]

(1) missing number

[1 2 4 5 6 7 8]

$s = 33$.

$1+2+3+\dots+N = \frac{n(n+1)}{2} = \frac{8(9)}{2} = 36$

$36 - 33 = 3$

$1 + -3 + -1 + 4 + 5 = 15$

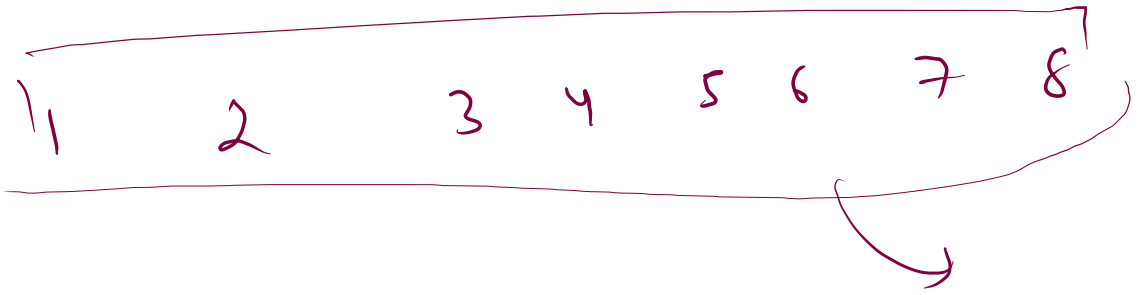
13

$\frac{n(n+1)}{2}$

$\frac{5(6)}{2} = 15$

$15 - 13 = 2$

Basic Question.



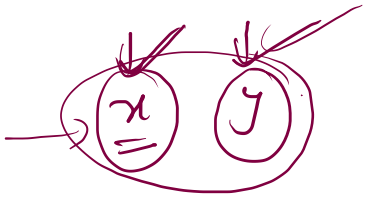
89

36

3

$$1^2 + 2^2 + 3^2 + \cdots + n^2 = \frac{n(n+1)(2n+1)}{6}$$

$$1 + 2 + \cdots + n = \frac{n(n+1)}{2}$$



$$8 = 1y$$

1 2 2 4 5

2 quadratic eqn

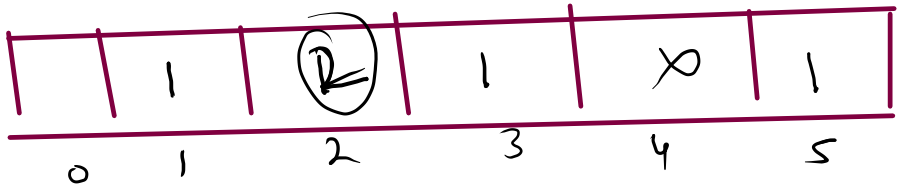
M & R.

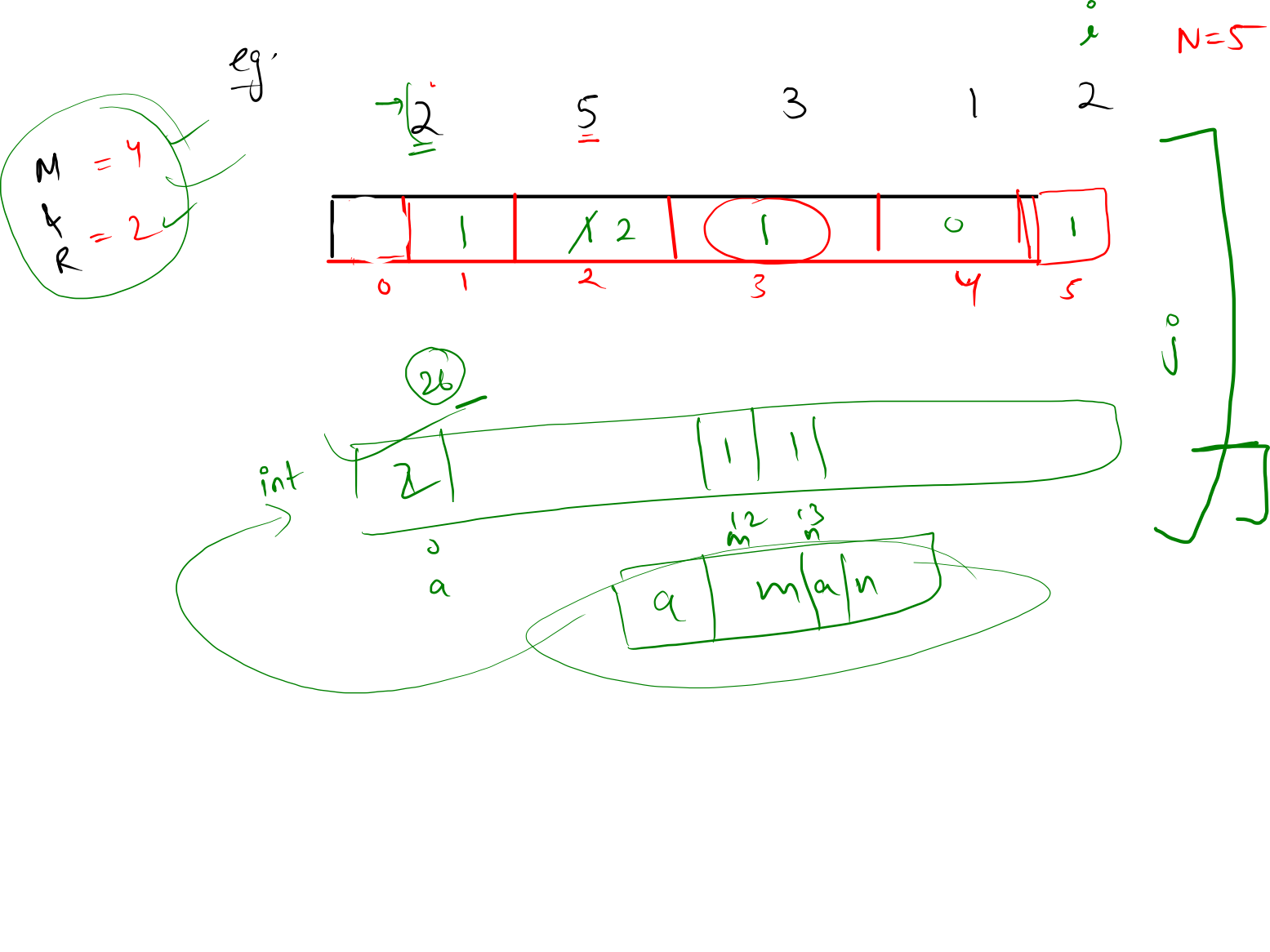
Array

1 2 2 3 5

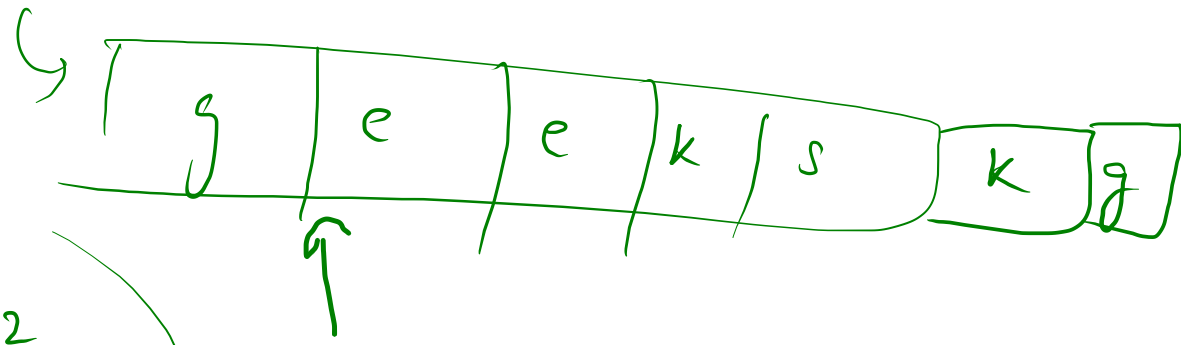
N = 5

O(n)




eg.
M = 4
&
R = 2
i
N=5
2
5
3
1
2
1
2
1
0
1
0 1 2 3 4 5
j
26
int
2
1 1
a
m
n
q m a n

Que. char [ ] A



freq:

g -- 2

e -- 2

k -- 2

s -- 1