8 Given string represents a non-negative integer, and an integer k, return the smallest possible integer after removing k digits from no.

Eg: no = "1432219" k = 3

output → 1219

Eg: no: "10200" k=1

output → 200

"1432219" k

Ot 6

1abxx 1bxxx

A B

a > b

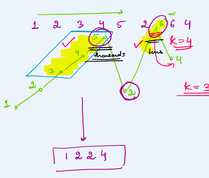
⇒ A > B

5 6

36

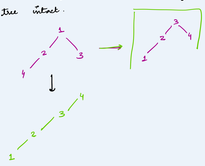
k = 1

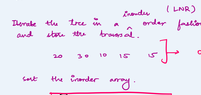
5, 3, 6



| 1 2 2 4 |

9 Given a binary tree, convert it to Binary search tree in such a way that keeps the original structure of binary tree intact.





[1] Traverse the tree in a inorder (LNR) order fashion and store the traversal.

20 30 10 15 5 → O(nlogn)

[2] Sort the inorder array.

→ | 5 10 15 20 30 | as T

[3] Traverse over the BT and copy paste the values.

Decoding an encrypted string

8 given a string in an encrypted form:-

ab2c3

ab abc abcabc abcabc

ans = a

k = 8

find the kth character in decrypted string.

| ab | 22

ab abab ..... 22 times

(1) Find k^{th} character

Do you really care about the char occuring after k ??

Eg: | ab2 | c3 ...

k = 4

(2) ab2c3

k^{th} char

| abbc abbc abbc |

S1 S1 S3

| ab | abc |

S_1 S_2 S_3

k^{th} char → k % 5 char ⇒ 3

| a | b | c |

k = 3 → 3 % 2 = 1

| a | b | a | b |

ab2c3

((1 + 1) × 2) + 1) × 3

length

k = 8 % 5

8 % 3 = 1

length of part = 5

last char = c

| ababc |

| a | b |
| 1 | 2 |

check

| ab2c3 |

length = (1 + 1) × 2

= 4 + 1 = 5 * 3 = 15

length = 15

k = 8

pop

| c | 5 |

substring length of 5

× length = 15 / 3 = 5

k = 8

k = 8 % 5 = 5

b 2

substring = 2

k = 3

Find k % L = 3 % 2 = 1

| 2 | 1 |

Find k % L = 1 % 1 = 0

k = 10

| c | 5 |

k = 10 % 5 = 0