

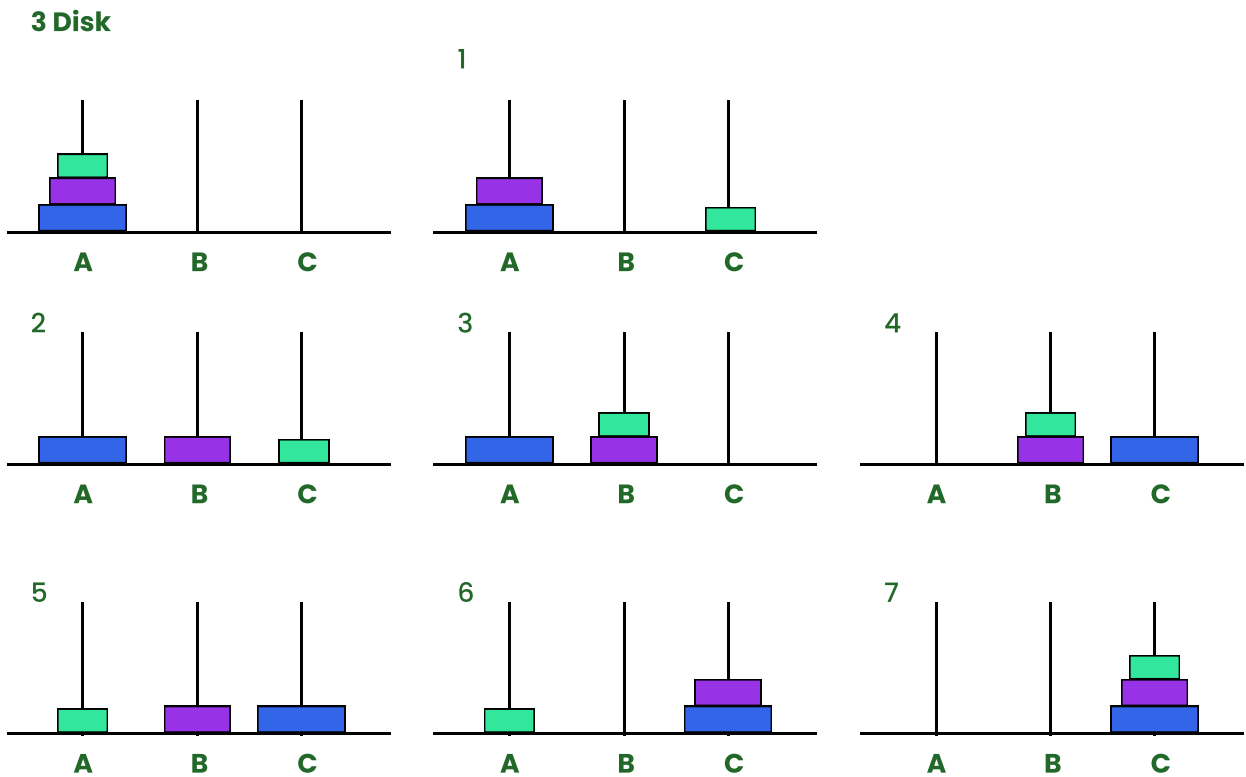
Recursion

Assignment Questions





Q.1 Can you explain the logic and working of the Tower of Hanoi algorithm by writing a Java program? How does the recursion work, and how are the movements of disks between rods accomplished?



Q.2 Given two strings word1 and word2, return the minimum number of operations required to convert word1 to word2.

Example 1:

Input: word1 = "horse", word2 = "ros"

Output: 3

Explanation:

horse -> rorse (replace 'h' with 'r')

rorse -> rose (remove 'r')

rose -> ros (remove 'e')

Example 2:

Input: word1 = "intention", word2 = "execution"

Output: 5

Explanation:

intention -> inention (remove 't')

inention -> enention (replace 'i' with 'e')

enention -> exention (replace 'n' with 'x')

exention -> exection (replace 'n' with 'c')

exection -> execution (insert 'u')



Q. 3 Print the max value of the array [13, 1, -3, 22, 5].

Q.4 Find the sum of the values of the array [92, 23, 15, -20, 10].

Q.5 Given a number n. Print if it is an armstrong number or not. An armstrong number is a number if the sum of every digit in that number raised to the power of total digits in that number is equal to the number.

Example : $153 = 1^3 + 5^3 + 3^3 = 1 + 125 + 27 = 153$ hence 153 is an armstrong number. (Easy)

Input1 : 153

Output1 : Yes

Input 2 : 134

Output2 : No