Recurrence Relation

↳ Recursion → factorial of any given number

fact(n)

fact(n) = n * fact(n-1)

5! = 5 x 4 x 3 x 2 x 1 = 120

Base case → n = 0 || n = 1

↳ return 1

Recurrence Relation

1) Substitution Method
2) Recursive Tree Approach
3) Master's Theorem

$$T(n) = \begin{cases} 1 & n = 1 \\ T(n-1) + n & n > 1 \end{cases}$$

↳ Time complexity = ??