

Recurrence Relation -

$$\boxed{fac(n) = n \times \underline{fac(n-1)}}$$

Variable - Stores values. Can change value during runtime.

Data types - Specify type of data.

Data Structure -

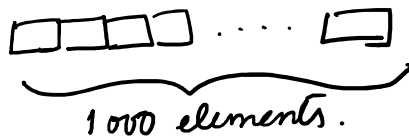
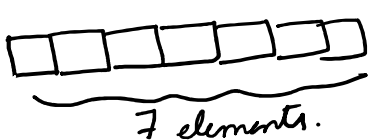
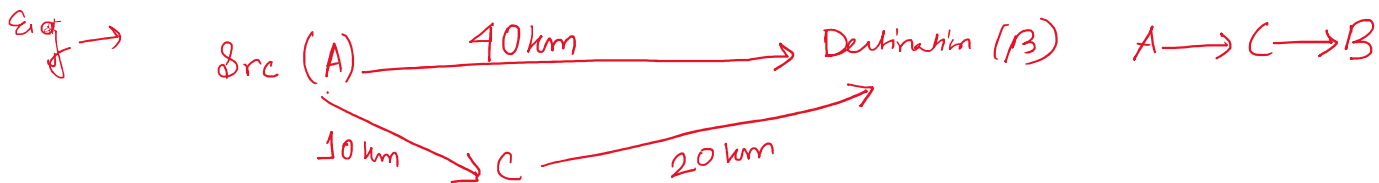
- Linear - linearly store access. Arrays, LL, stack, queues.
- Non-linear - linearly store. Eg - Tree, Graph.

Algorithm - steps should be unambiguous.

Analysis - Why? ① Verification it gives correct result/not.

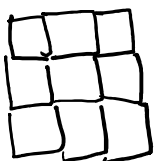
② Optimisation.

- Time
- Space.



→ Number of elements

① Time Complexity, Space complexity ↑ with increase in n



$$r, c$$

$$TC = O(R \times C)$$

Matrix dimension (↑), No. of elements (↑),  
TC, SC (↑↑).