#1) Problem with (2) Disks.

=) Move ⟨A,C⟩

=) Move ⟨A,B⟩

=) Move ⟨C,B⟩

#2) Problem with (3) Disks

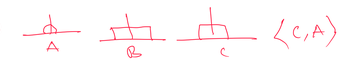
=)

=)

=)

=)

=)



=)

=)

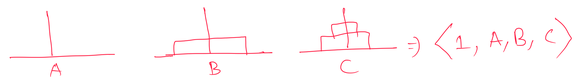
#3) Approaching Problem by Selecting SubProblems.

(3, A, B, C)

i)

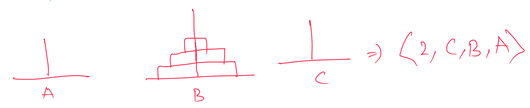
=) ⟨2, A, C, B⟩

ii)



=) ⟨1, A, B, C⟩

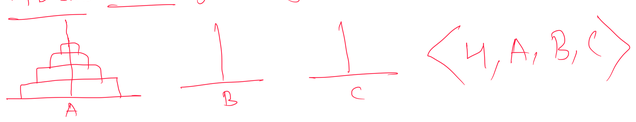
iii)



=) ⟨2, C, B, A⟩

#4) 4 Disk's Problem by Selecting Sub-Problems.

=)

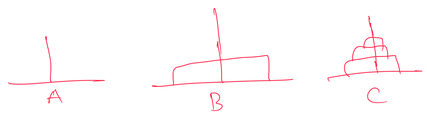


⟨4, A, B, C⟩

i)

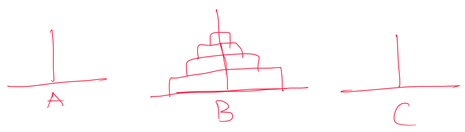
⟨3, A, C, B⟩

ii)



⟨1, A, B, C⟩

iii)



⟨3, C, B, A⟩

#5) Note!-) Generalizing the Equation for "N" Disk Problem.

=) ⟨N, A, B, C⟩

=) ⟨N-1, A, C, B⟩

=) ⟨1, A, B, C⟩

=) ⟨N-1, C, B, A⟩

=) By Analyzing the SubProblems for a Problem, we Came to a conclusion that
- for a Problem, we Came to a Solution for "(N)".

Recursive Defination

Towers: N, A, B, C

Base Condition: if (N == 1) → L = { ⟨A, B⟩ }

Inductive Case!-) if (N > 1):

Decomposition ←
- List1 = Towers (N-1, A, C, B);
- List2 = Towers (1, A, B, C);
- List3 = Towess (N-1, C, B, A);

Recompose!-)

L = Append (List1, List2, List3);