


Basic Input-Output (IO)



Legend

Thoughts:

Unscored

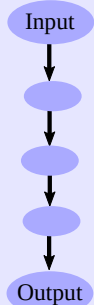
 Positive score Negative score

↓ Dependencies
between thoughts

 Abandon thought

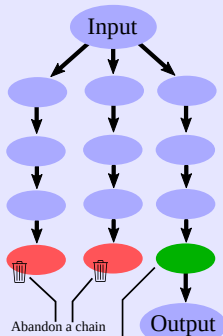
Backtrack

Chain-of-Thought (CoT)



Key novelty:
Intermediate
LLM thoughts
within a chain

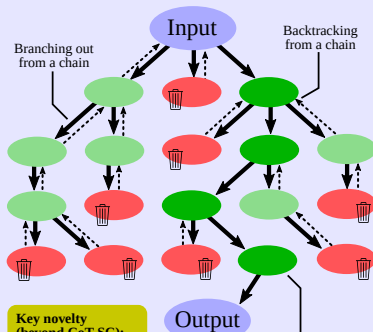
Multiple CoTs (CoT-SC)



Key novelty (beyond CoT):
Harnessing multiple independent chains of thoughts

- Selecting a chain with the best score

Tree of Thoughts (ToT)

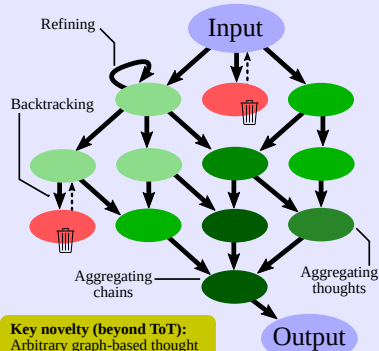


Key novelty (beyond CoT-SC):
Generating several new thoughts based on a given arbitrary thought, exploring it further, and possibly backtracking from it

Intermediate thoughts are also scored

Graph of Thoughts (GoT)

[This work]



Key novelty (beyond ToT): Arbitrary graph-based thought transformations (aggregating thoughts into a new one, looping over a thought to refine it)