

After further analysis, I've identified **four possible interpretations** of the scenario (illustrated in Figures 2–5). To resolve the ambiguity in pruning behavior when a node has multiple parents, could you please confirm which of the following is correct?

- Keep node V as a single instance.
- Prune the B-V branch but allow normal exploration of the S-V branch

I've reattached Figures 2-5 for your convenience. Thank you for your time and guidance—I truly appreciate your support.

Best regards,
Zongze Li

① α should compare to all β to check $\alpha \geq \beta$

$R \stackrel{?}{\geq} T$ $R \stackrel{?}{\geq} A$
 $5 \geq +\infty$ \times $5 \geq 3$ $\checkmark \Rightarrow$ Need prune $R-V$

② However, when a node has more than one parents, we need to duplicate the child branch to each parent.

So, $R-V$ cannot be pruned!

Min

Max

Min

Max

Min

5 3 2 4 1

10 9 3

5 6 12

[illegible]

Minimax search tree diagram for a 3-player game. The tree structure and values are as follows:

- Root: A (Max) with value 3.
 - Child B (Min) with value 3.
 - Child E (Max) with value 3.
 - Child J (Min) with value 5.
 - Child K (Min) with value 3.
 - Child L (Min) with value 2.
 - Child M (Min) with value 4.
 - Child N (Min) with value 1.
 - Child F (Max) with value 2.
 - Child G (Max) with value 1.
 - Child C (Min) with value 10.
 - Child H (Max) with value 10.
 - Child O (Min) with value 10.
 - Child I (Max) with value infinity.
 - Child D (Min) with value 5.
 - Child T (Max) with value 5.
 - Child R (Min) with value 5.
 - Child S (Min) with value 6.
 - Unlabeled child (Min) with value infinity.

Pruning is indicated by red slashes and blue arrows showing the search path.

 答复
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周日 2025/5/4 22:57

Hi ZongZe, only one node V in your Fig below has more than one parents. So if V needs to be visited from any of its parent, it cannot be pruned.

nodes no need to be visited:
M, L, P, Q, and X

Cheers,