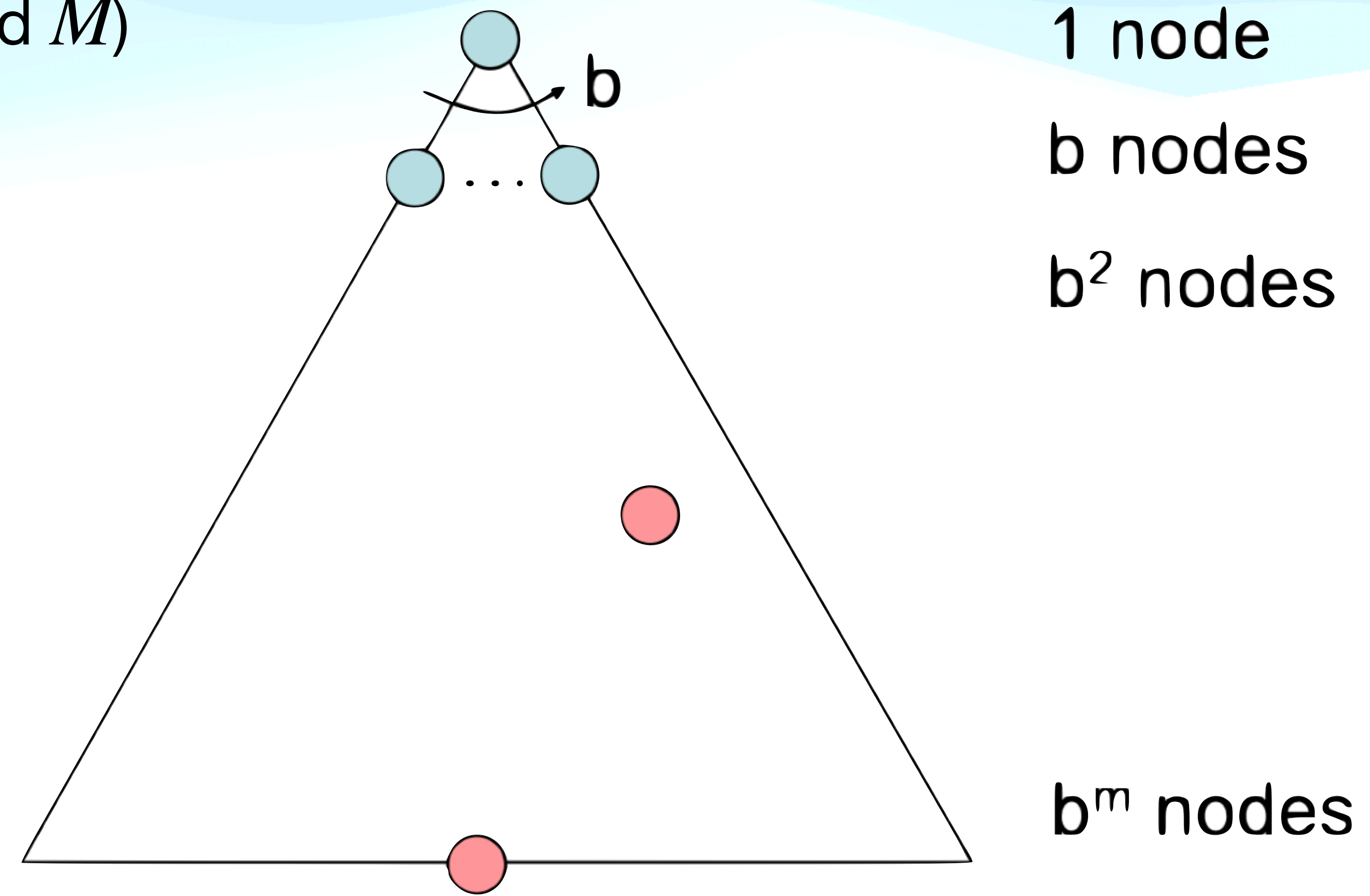


DFS: refinement

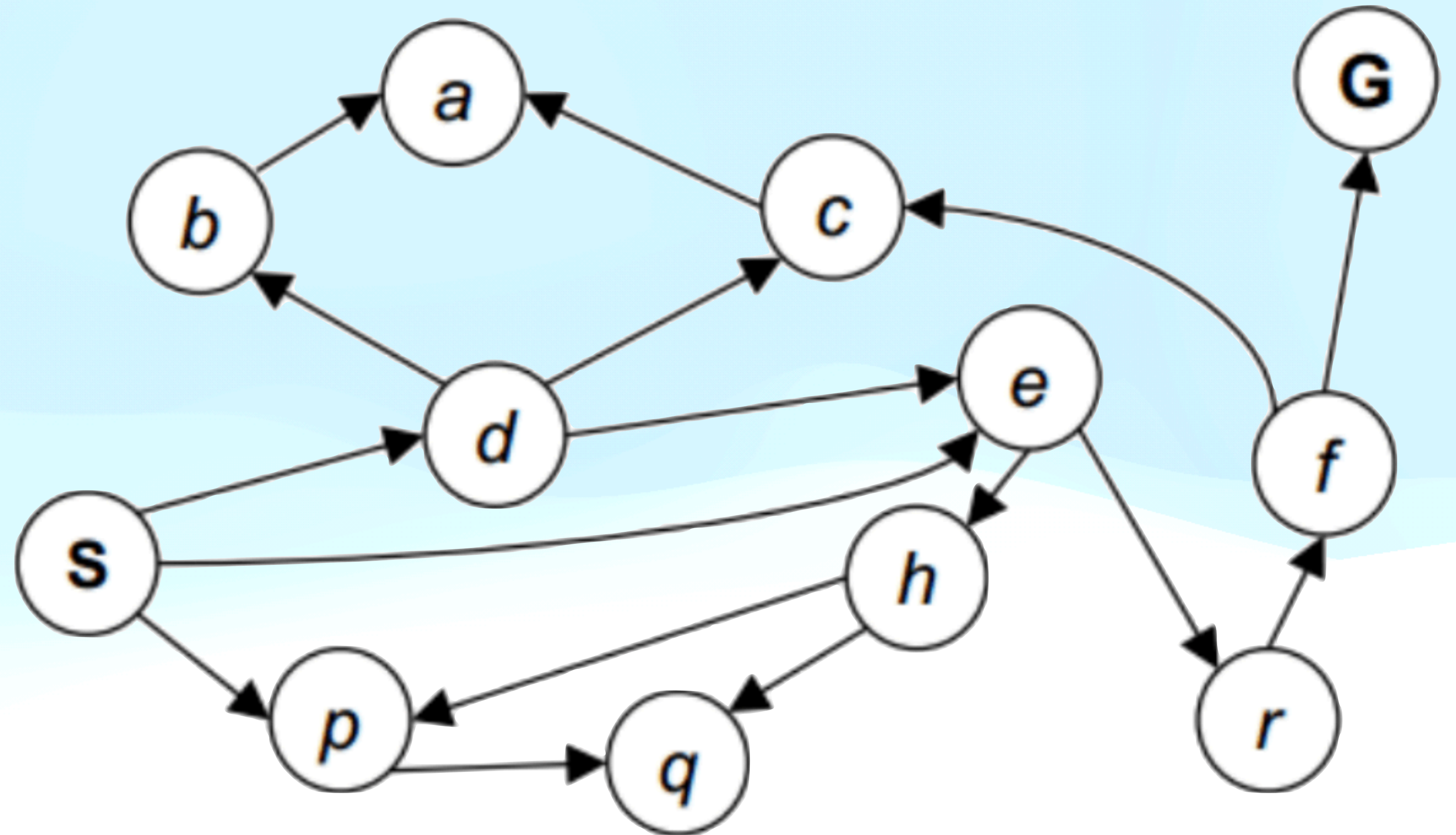
Completeness? Optimal?

- Depth-Limited Search: Limit the search depth to M
- Complete if $M \geq s$ (need to design a good M)
- Iterative DFS: try $M = 1, 2, \dots, S$
 - Behaves more like BFS
 - Advantage?
 - Space complexity: bs
 - Time complexity: $\sum_{i=1}^s b^i = \tilde{O}(b^s)$



IDFS

- Order of Generated
 - d, e, p, q, h, r, b, c
- Order of Expand
 - S, p, e, d, ...



- The order is **similar** with BFS except for the alphabetical orders
- This one is tricky (DFS as well).