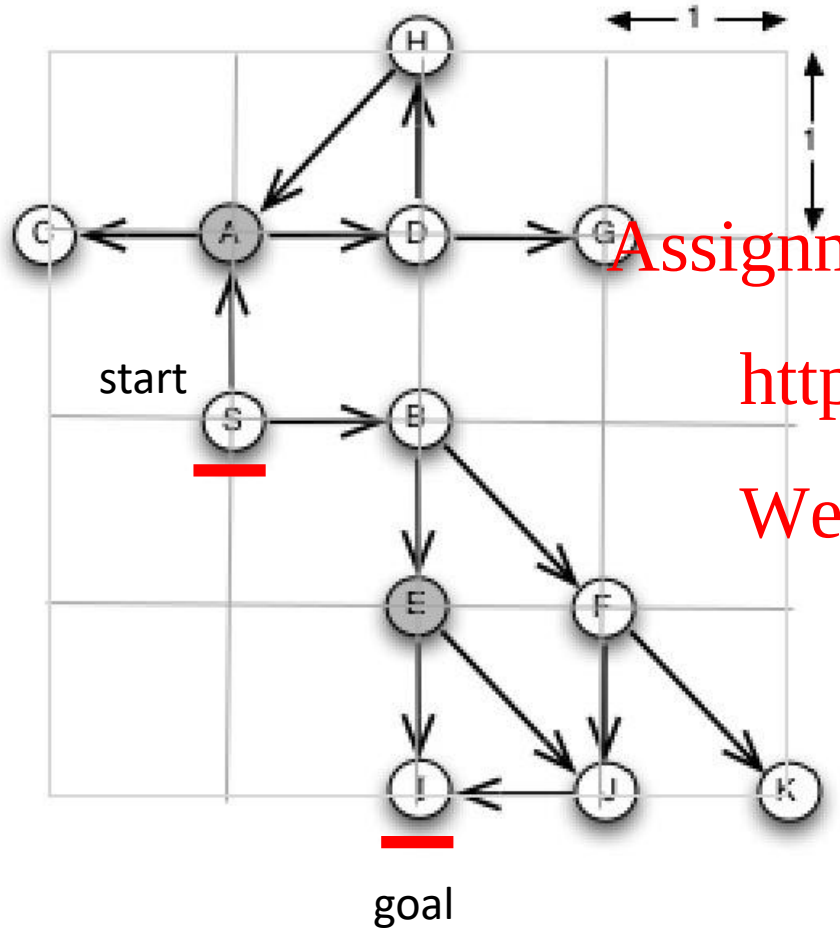
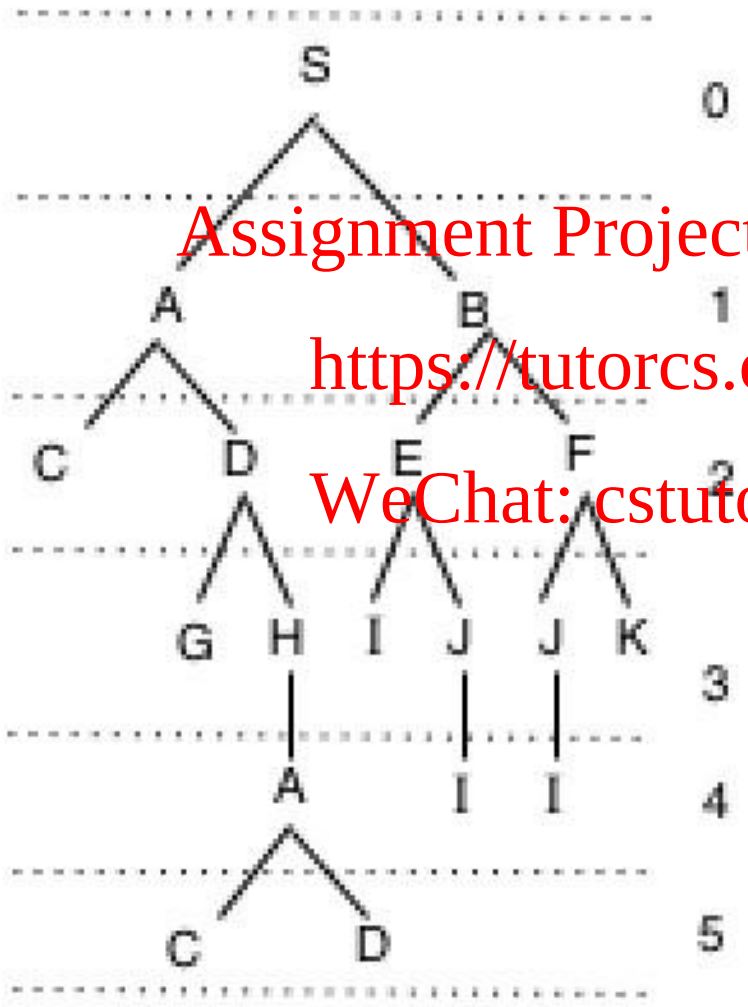
Uninformed/informed search



step cost= distance, but cost of path till A or E s doubled. (e.g. cost of path S - A is 2)

Possible search tree



Uninformed search: Sample solutions

- In what order may nodes be expanded using breadth-first?
  - S-A-B-C-D-E-F-G-H-I

- Best path (for Uniform-cost search)?
  - S-B-F-J-I

(so breadth-first not optimal if step-cost not constant)

- In what order may nodes be expanded using depth-first?
  - S-B-E-I.

(depth-first could loop if path starts with S-A….loop checking needed)

- Best (least) depth for depth-limited?
  - 3

Informed search: Sample solutions

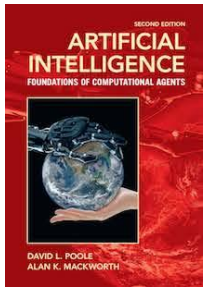
- Admissible heuristics?
  - ➢Straight line distance from any circle to the goal circle I.

- Using
  - the straight-line-distance admissible heuristic and
  - step cost= distance, but cost of path till A or E is doubled

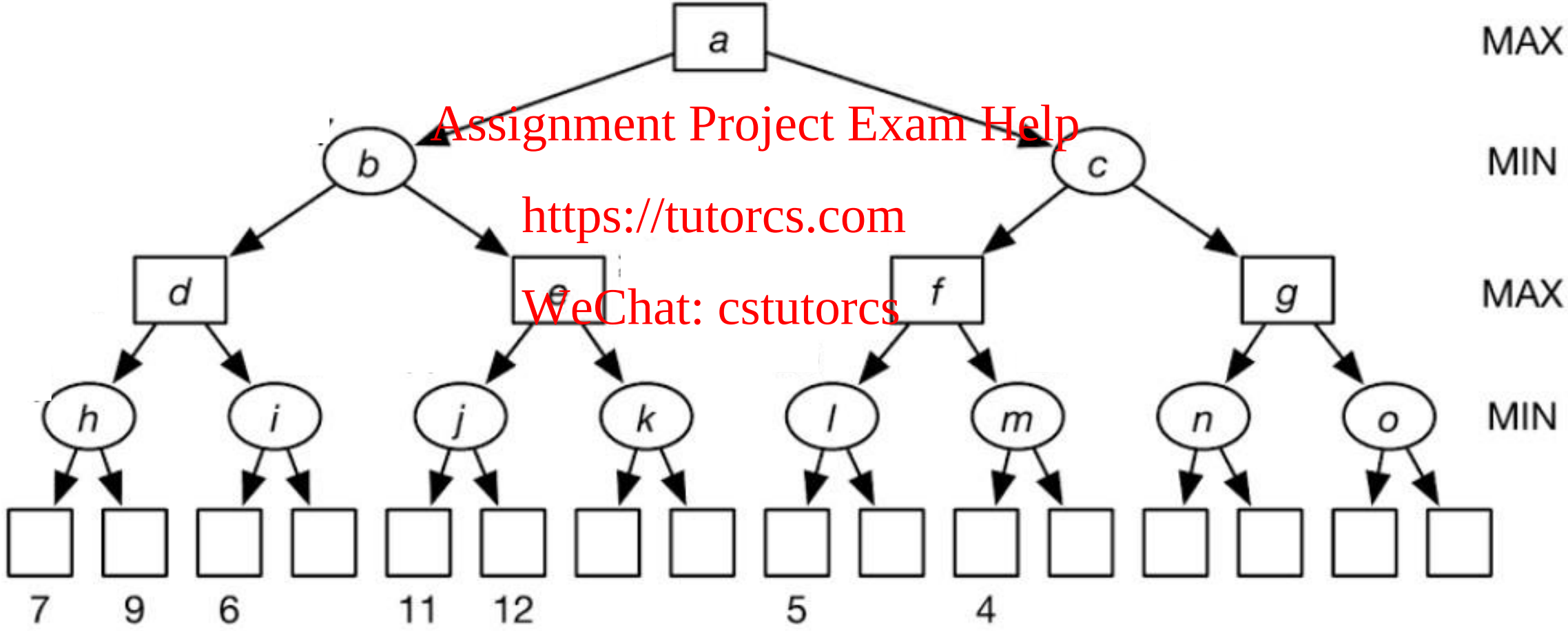
which of E and F will A∗ search expand first?

  - ➢F

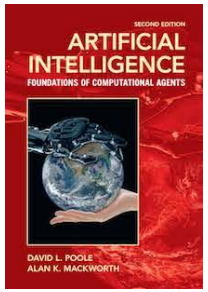
Adversarial search (minimax, α-β pruning)



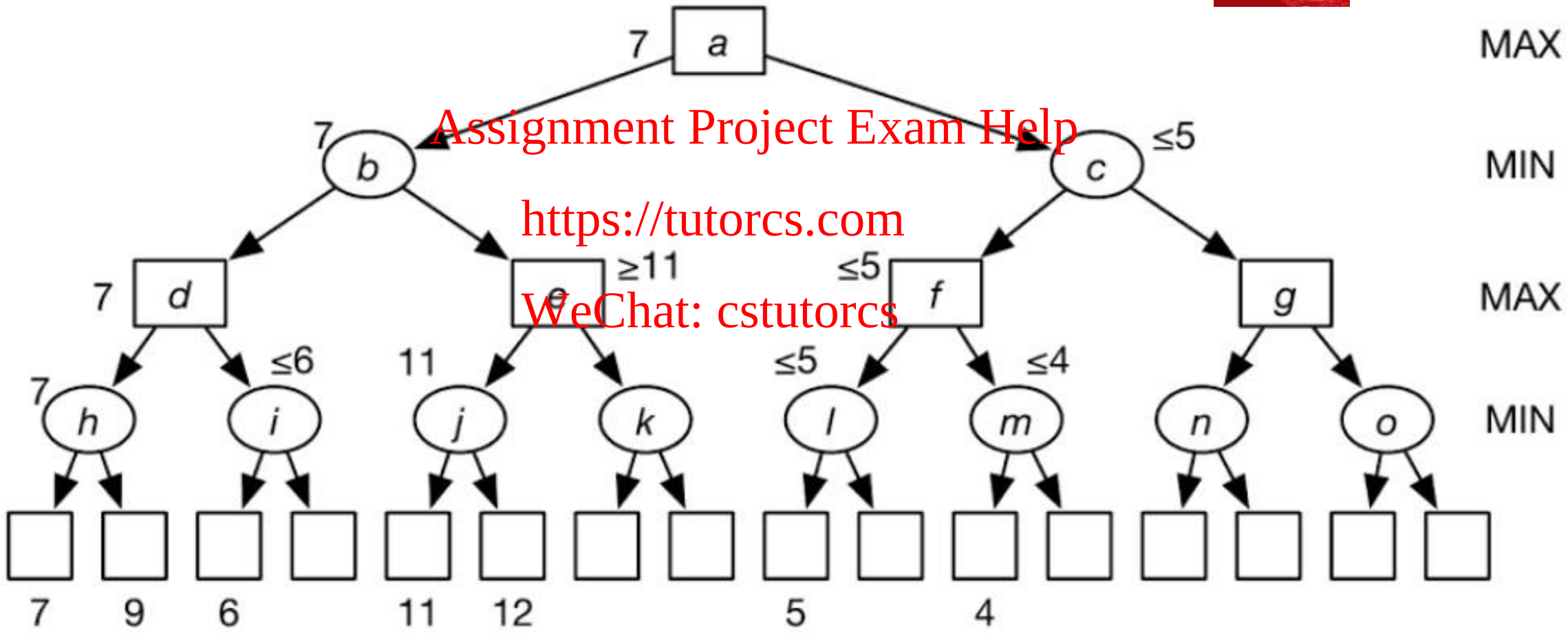
(section 11.2.2)



Adversarial search (minimax, α-β pruning)



(section 11.2.2)



Adversarial search (minimax, α-β pruning)

Check tool at:

http://inst.eecs.berkeley.edu/~cs61b/fa14/ta-materials/apps/ab_tree_practice/