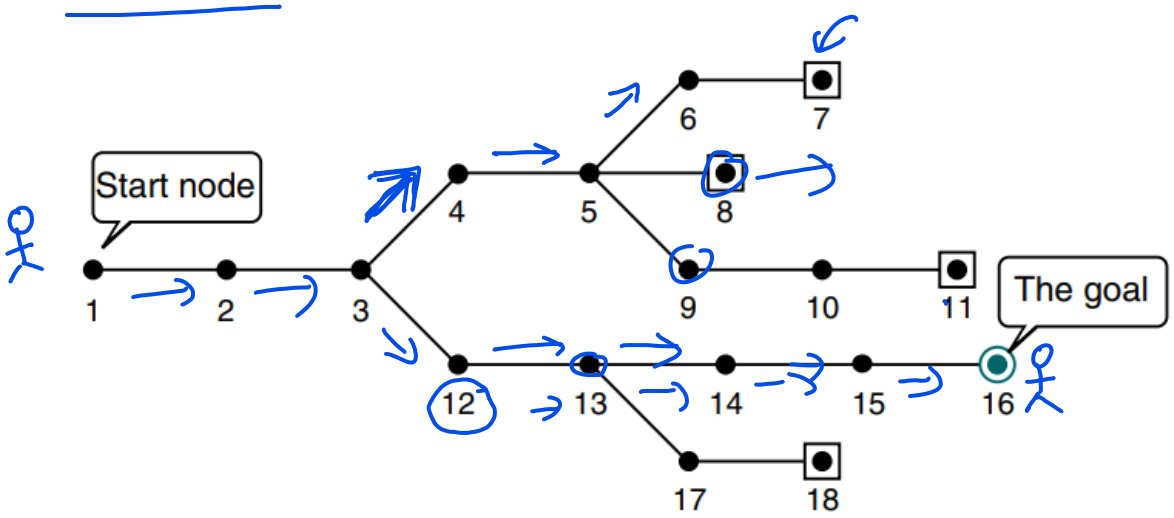
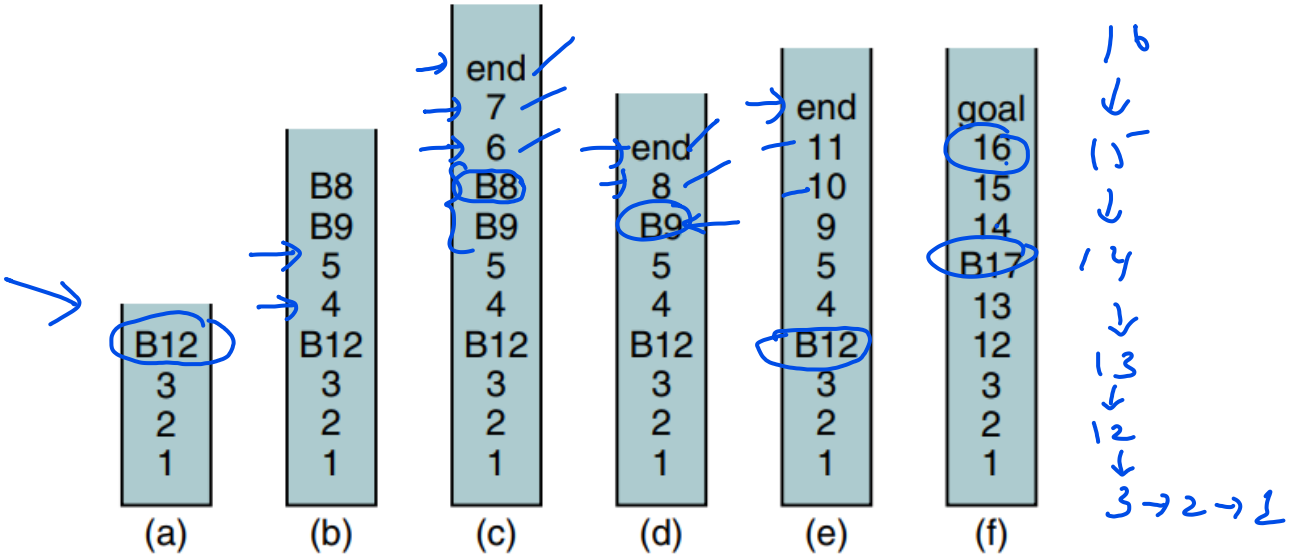
Backtracking





```
Algorithm seekGoal (map)
This algorithm determines the path to a desired goal.
   Pre  a graph containing the path
   Post path printed
 1 createStack (stack)
 2 set pMap to starting point
 3 loop (pMap not null AND goalNotFound)
   1 if (pMap is goal)
      1  set goalNotFound to false
   2  else
      1  pushStack (stack, pMap)
      2  if (pMap is a branch point)
         1  loop (more branch points)
            1  create branchPoint node
            2  pushStack (stack, branchPoint)
         2  end loop
      3  end if
      4  advance to next node
   3  end if
 4 end loop
 5 if (emptyStack (stack))
   1  print (There is no path to your goal)
 6 else
   1  print (The path to your goal is:)
   2  loop (not emptyStack (stack))
      1  popStack (stack, pMap)
      2  if (pMap not branchPoint)
         1  print(map point)
      3  end if
   3  end loop
   4  print (End of Path)
 7 end if
 8 return
end seekGoal
```

O(|V|+|E|)