

W7.

- a) Each node should contain the partial solution of the subset of A and the union of the partial solution so far. The root should contain the empty set.
- b) Each partial solution can be extended by adding a set in A such that it contains a new value that is not already in the union of the subset. Sets in A can only be considered sequentially when extending a node to its children. If a partial solution exceeds the smallest size so far, then stop and backtrack.
- c) Adhering to a fixed order of set addition at each extension of a node prevents the search tree from creating the same solution again. By reducing redundancy in the search tree, each solution will only be explored once.