

This project asks you to investigate m -ary trees.

- (a) At most, how many vertices does an m -ary tree of height h have? (In terms of m and h .)
- (b) Using Theorem 4 in the text, how many leaves does such a tree have? (Simplify your answer.)
- (c) There are three non-isomorphic full 3-ary trees of height two. Draw them. How many leaves does each of them have?
- (d) How many leaves would you conjecture that a full 6-ary tree of height two could have? Give all of the answers.
- (e) There are seven non-isomorphic full 2-ary trees of height three. Draw them.