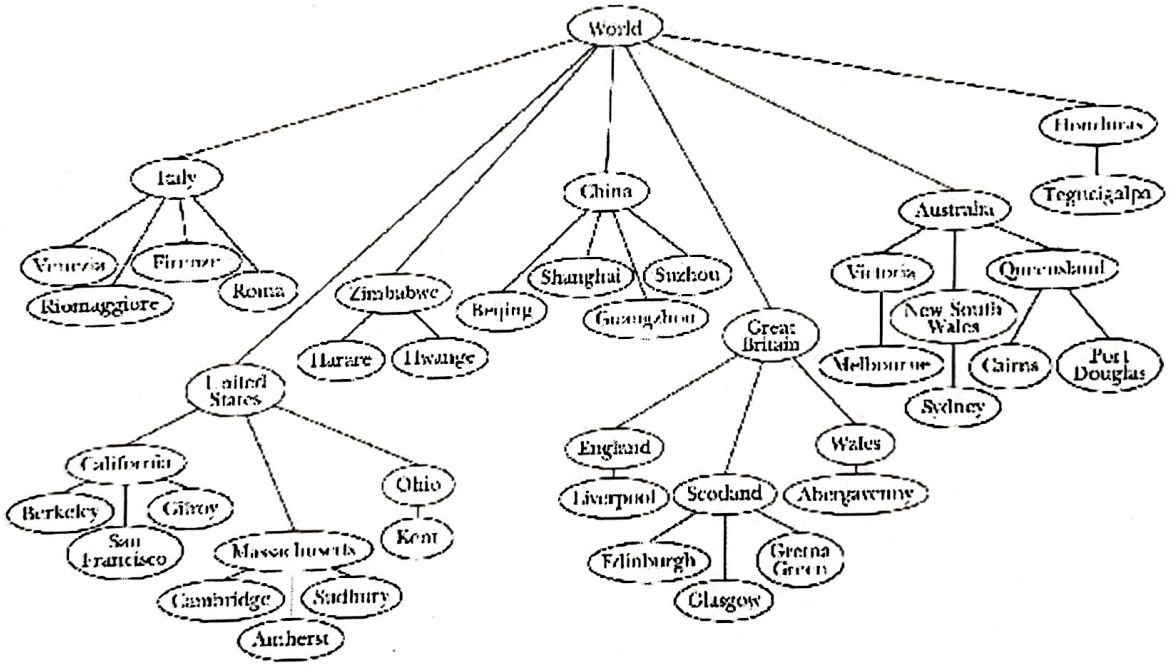
ntroduction to Trees – Flipped Lab

Your names here:
(alphabetical by last name, place a star by the typist's name) X CARL DIAZ

You are working on this as a group!!
Complete one problem at a time
Have the Instructor or TA sign off ***after you complete each*** problem so you may move on.
You will be graded on your overall completion.
You **are allowed** notes, books, etc…

Setup



For this problem:

1. Download the trees2.scm code by:
   a. (in UNIX)
      wget http://faculty.cse.tamu.edu/slupoli/notes/Scheme/code/trees/trees2.txt
   b. (in Windows)
      http://faculty.cse.tamu.edu/slupoli/notes/Scheme/code/trees/trees2.txt

Use the code and pic above for the tree.
The old ways are not always the best

1. Using only the cdr/car function variations, display "Wales".

Please have a Dr Racket window open when presenting your answer.

Instructor/TA signature	

our names here:
(alphabetical by last name, place a star by the typist's name) Arthur Dias

Count number of non-leaf nodes in the tree

2. Write a function count-non-leaves to return the **number of non leaf nodes in the world tree.** You can define a helper function if needed. Result should be 17.

Please have a Dr Racket window open when presenting your answer.

Instructor/TA signature	

Your names here:
(alphabetical by last name, place a star by the typist's name)

KUHEL DIAZ 40%

First child of a node

3. Write a function first-child-tree that when given a place **it returns the first child node for that place.** If there are no child nodes just return the null value. Assume the place is in the tree. You can define a helper function if needed.

(first-child-tree 'china world-tree2) → beijing

(first-child-tree 'liverpool world-tree2) → '()

Instructor/TA signature	

input string of location

city

define search (name tree)

if (equal? name (datum tree)

go