Write a program to read in this tree (represented in the Newick representation):

(Mouse:1.00909,(((BarbMacaq:0.20451,((Jpn_Macaq:0.05090, Rhesus_Mac:0.05090):0.07494,Crab-E.Mac:0.12583):0.07868):0.31871, ((Orang:0.26371,((Chimp:0.13116,Human:0.13116):0.05105, Gorilla:0.18221):0.08150):0.10382, Gibbon:0.36754):0.15569):0.09691,Squir_Monk:0.62014):0.24988, ((Bovine:0.57749,Lemur:0.57749):0.13539, Tarsier:0.71288):0.15714):0.13907);

This tree will be found downloadable from a link near this homework: http://evolution.gs.washington.edu/gs541/2008/homework1.tre

Set up the tree inside your computer. Then the user is asked to specify which species (left-to-right order) to use to reroot the tree.

Reroot the tree on the branch to that species. Print it out in Newick format. To reroot onto a branch leading to the species, make a root in the middle of that branch, with equal branch lengths on either side of the root, ones that add up to the original branch length. Note that the branches from which you removed the previous root will end up with a length equal to the sum of the branch lengths that were on either side of that root.

e-mail me (joe (at) gs.washington.edu) with the results, and also attach your source code (so I can help find any problems).

(I know this one is going to be tiresome, but the software you write will be used in later assignments).