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Decision Trees

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1. Fill in the boxes in the internal nodes with letters so that exactly one training example and one testing example fall into each leaf. Left branch is, "yes" and right branch is, "no".
2. Classify each word by filling in the leaf boxes using the labels given in the table.
3. Classify the test set using the leaf values.
4. Use the test set classifications to extract letters from the test set words. Combine these letters into the answer.

Training example	Label	Test Set	Test Set Label
beech	2	alder	
cedar	2	aspen	
fir	4	birch	
locust	1	hickory	
poplar	3	pear	
willow	7	spruce

Decision trees are an important representation in the field of machine learning.
See https://en.wikipedia.org/wiki/Decision_tree_learning.

***Look for the answer to the Decision Tree in the next issue of ACM Inroads.**

*Answer to the Cryptogram in the June issue of ACM Inroads.
"To understand a program you must become both the machine and the program."
Alan J. Perlis, (1922-1990), Yale University