Consider the `Carseats` data set from the `ISLR` library. This is a data set containing sales of child car seats at 400 different stores. It includes 11 variables, one of which is `Sales`. It is of interest to predict if the sales of a store are high (more than 8000 car seats to sell) based on 10 predictors (categorical or continuous). Therefore `high` is a categorical variable that is to be created based on `Sales` values. It is also of interest to identify which variables are most useful to predict high sales. Divide the dataset into a training (50%) and a test set.

a) Use function `tree` from library `tree` to fit a categorical tree.

b) Which predictors are found most important?

c) Report the test MSPE error rate.

d) Use Cross validation on the classification error rate to find the best number of terminal nodes. Prune the tree to find MSPE for the test set.