Week 5 - Check Your Understanding

1. Decision tree can only be used for categorical response
   1. True \*b. False
2. The prediction of a regression tree (quantitative response) are the mean of the response values of the observations in the associated node.

* \*a. True
  1. False

1. The prediction of a classification tree (qualitative response) are the majority of the response values of the observations in the associated node.

* \*a. True
  1. False

1. Gini-Index is the only way to measure the impurity of a node in decision trees.
   1. True \*b. False
2. Decision Trees split using Gini-Index are similar to trees split using entropy.

* \*a. True
  1. False

1. Deeper/larger trees will have a higher training accuracy than the shallower trees.

* \*a. True
  1. False

1. One wants to build a decision tree to detect if a patient has lung cancer. One should use

* \*a. Classification Tree
  1. Regression Tree

1. One wants to build a decision tree to predict salary. One should use
   1. Classification Tree

* \*b. Regression Tree

1. Decision trees can achieve zeros training errors for any given data.

* \*a. True
  1. False