Alone or with Friend	Weather	Distance to Park	Go to Park?
Alone	Sunny	Long	No
Friend	Sunny	Short	Yes
Alone	Cloudy	Short	Yes
Friend	Rainy	Long	No
Friend	Rainy	Short	No
Friend	Sunny	Short	Yes
Alone	Cloudy	Long	Yes
Friend	Sunny	Long	No
Alone	Sunny	Long	No

Q1) a. Using the previous table (The first 3 columns are features and the last column is the label), draw the decision tree, using the information gain measure and stopping conditions taught in class.

b. What is the output of the following of the tree:

i. Alone, Sunny, Short

ii. Friend, Cloudy, Long

Good Grades	PC at Home	Cool	AI Class?
Y	Y	Y	Y
Y	N	Y	Y
Y	N	N	N
N	N	Y	Y
N	Y	N	N
N	N	N	N

Q2) a. Using the previous table (The first 3 columns are features and the last column is the label), draw the decision tree, using the information gain measure and stopping conditions taught in class.

b. What is the output of the following of the tree:

i. Have good grades, Cool, Have PC at home

ii. Not cool, Have good grades, PC at home