## Naive-Bayes-Example

## Question 1

## Part I

Consider the following data set with three Boolean predictive attributes, W, X, Y, and Boolean classification C.

W	X	Y	$\mathbf{C}$
Τ	Τ	Τ	Т
${ m T}$	$\mathbf{F}$	${\rm T}$	$\mathbf{F}$
${\rm T}$	$\mathbf{F}$	$\mathbf{F}$	F
F	$\mathbf{T}$	$\mathbf{T}$	F
$\mathbf{F}$	$\mathbf{F}$	$\mathbf{F}$	T

We now encounter a new example: W = F, X = T, Y = F. How should this example be classified using the Naive Bayes method? Show your computations.

## Part II

Typically Naive Bayesian produces an approximate MAP hypothesis. What would be the approximate ML hypothesis?