Quiz 3

Due Sep 21 at 10am **Points** 130 **Questions** 8
Available Sep 16 at 1pm - Sep 21 at 11:59pm 5 days **Time Limit** None

Instructions

For e use 2.7182818

for pi use 3.14159

This quiz was locked Sep 21 at 11:59pm.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	244 minutes	110 out of 130

Correct answers are hidden.

Score for this quiz: **110** out of 130
Submitted Sep 19 at 4:12pm
This attempt took 244 minutes.

Question 1

25 / 25 pts

Given the data set in the file weather.numeric.csv for Naive Bayes, by hand, calculate the value for f(73) for temperature for the following test example for the class yes.

Outlook	Temperature	Humidity	Windy
sunny	73.0000	68.0000	FALSE

0.0558

Question 2

15 / 15 pts

Given the weather.numeric20.csv file what class do you get for the example below using Naive Bayes without using Weka and with no Laplace correction?

Outlook	Temperature	Humidity	Windy
sunny	73.0000	68.0000	FALSE

- ○ No
- ◉ yes

Incorrect

Question 3

0 / 10 pts

Given the weather.numeric20.csv file for the example below without using Weka and with no Laplace correction using Naive Bayes what is the pseudo-probability for the class yes for the test example below?

Outlook	Temperature	Humidity	Windy
sunny	73.0000	68.0000	FALSE

0.0002

Question 4

25 / 25 pts

Naive Bayes in Weka for the data in the weather.numeric20.csv file

- ○ uses laplace correction and its probability for outlook=sunny for class=yes is 0.111
- ◉ uses laplace correction and its probability for outlook=sunny for class=yes is 0.1666
- ○ naive bayes in weka does not use laplace correction

Incorrect

Question 5

0 / 10 pts

What is the information value for a data set that has 3 classes with 4 in Class1, 8 in Class2, and 2 in Class3?

1.7136

Question 6

25 / 25 pts

Use the file xor.arff for the exclusive-or problem. Try it in Weka with J48 and test on training. It generates a correct tree

- ◉ never, but I could build a correct decision tree
- ○ never and I could not build a correct decision tree with any algorithm

only with m=1

always

Question 7

10 / 10 pts

What is a possible reason for what you observed with J48 and exclusive or?

it worked after changing the m parameter

it works fine, as expected

must have a bug

with default settings there is no information gain when you test any attribute so it must have a default quit in that case

Question 8

10 / 10 pts

Now using Weka for Naive Bayes with default parameters what do you get from weather.numeric20.csv (made into an arff file) and the test example for a "pseudo" probability for the class chosen for test example:

Outlook TemperatureHumidity Windy

sunny	73.0000	68.0000	FALSE

0.667

Quiz Score: **110** out of 130