

Table 5.1 Confidence Limits for the Normal Distribution

Pr(X >= z)	z
0.1%	3.00
0.5%	2.58
1%	2.33
5%	1.65
10%	1.28
20%	0.84
40%	0.25

Pr($p1 \leq p \leq p2$) is given by the above table, where

$$p1 = (f + z^2/(2N) - z \sqrt{f/N - f^2/N + z^2/(4N^2)}) / (1 + z^2/N)$$

$$p2 = (f + z^2/(2N) + z \sqrt{f/N - f^2/N + z^2/(4N^2)}) / (1 + z^2/N)$$

Suppose the J48 model for the iris dataset (150 instances) has 90% accuracy, when testing with 10-fold cross-validation. Assuming you want a 99% confidence interval on the accuracy obtained with one of the ten folds, write the equation for p1 without any variables.

First,

f = _____

z = _____

N = _____

p1 = _____