Bayesian Classification Worksheet

Table 7.1 Training data tuples from the *AllElectronics* customer database.

| RID | age | income | student | credit_rating | Class: buys_computer |
|-----|-------|--------|---------|---------------|----------------------|
| 1 | <=30 | high | no | fair | no |
| 2 | <=30 | high | no | excellent | no |
| 3 | 31 40 | high | no | fair | yes |
| 4 | >40 | medium | no | fair | yes |
| 5 | >40 | low | yes | fair | yes |
| 6 | >40 | low | yes | excellent | no |
| 7 | 31 40 | low | yes | excellent | yes |
| 8 | <=30 | medium | no | fair | no |
| 9 | <=30 | low | yes | fair | yes |
| 10 | >40 | medium | yes | fair | yes |
| 11 | <=30 | medium | yes | excellent | yes |
| 12 | 31 40 | medium | no | excellent | yes |
| 13 | 31 40 | high | yes | fair | yes |
| 14 | >40 | medium | no | excellent | no |

(By hand) Leave the first four samples out, and then use the remaining 10 samples to calculate the probability that each of the first four samples buys a computer. Use the naïve Bayes classifier that we have been discussing in class.