Quiz

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1. Programming

```
def cpt(n):
    num = 1
    for i in range(n):
        num = num * (i+1)

    with open('result.txt','a') as ff:
        ff.write(str(num)+'\n')
```

2. Data Mining Technique

- Algorithm name: Naïve Bayes
- Naïve Bayes can help classify sample into several groups according to attributes.

$$p(y|x) = \frac{p(x|y)p(y)}{p(x)}$$

- Based on machine learning, Naïve Bayes classifier is popular in sentiment analysis. For example, when analyzing social mood towards specific events from tweets data, there are three main steps:
  ① Label every tweet manually, 1 for positive mood, 0 for negative mood. According to frequency, get key features into vocabulary vector.
  ② Calculate priori probabilities and conditional probabilities.
  ③ Calculate probabilities of tweets categorized into positive or negative and choose the larger one, of which the group is desirable one. Then calculate error rate to evaluate.

*This quiz is finished all by myself: Codes are revised after debugging; Naïve Bayes were used in my last python program but some glossaries are looked up in dictionary☺