

# INF 552 Q4 and Q5 Results

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1) K Nearest neighbors -

<b>K</b>	<b>Accuracy</b>				
<b>1</b>	96	95.33	96	95.33	96
<b>3</b>	96	96.6667	96.6667	96	96
<b>5</b>	96.6667	97.3333	95.3333	96	98

Call the Matlab function by : `>> KNearest(k)`

2) Naive Bayes theorem -

Answers

- a) Long, Sweet and Yellow - Banana with a probability of 0.9692
- b) Long, not Sweet and not Yellow - Other Fruit with a probability of 0.5357
- c) not Long, Sweet, and Yellow - Orange with a probability of 0.5769

To run Naive bayes first load the fruits.mat and Type.mat files

```
>> load('Type.mat')
```

```
>> load('fruits.mat')
```

```
>> naivebayes(fruits, {'long','sweet','yellow'},Type)
```

```
>> naivebayes(fruits, {'long','not sweet','not yellow'},Type)
```

```
>> naivebayes(fruits, {'not long','sweet','yellow'},Type)
```