## Question 1

Will John buy the product?

| Customer | Age | Income | No. credit cards | Class |
|----------|-----|--------|------------------|-------|
| George | 35 | 35K | 3 | No |
| Rachel | 22 | 50K | 2 | Yes |
| Steve | 63 | 200K | 1 | No |
| Tom | 59 | 170K | 1 | No |
| Anne | 25 | 40K | 4 | Yes |

| John | | 37 | 50K | 2 | |
|------|--|-----|-----|---|--|

## Question 2
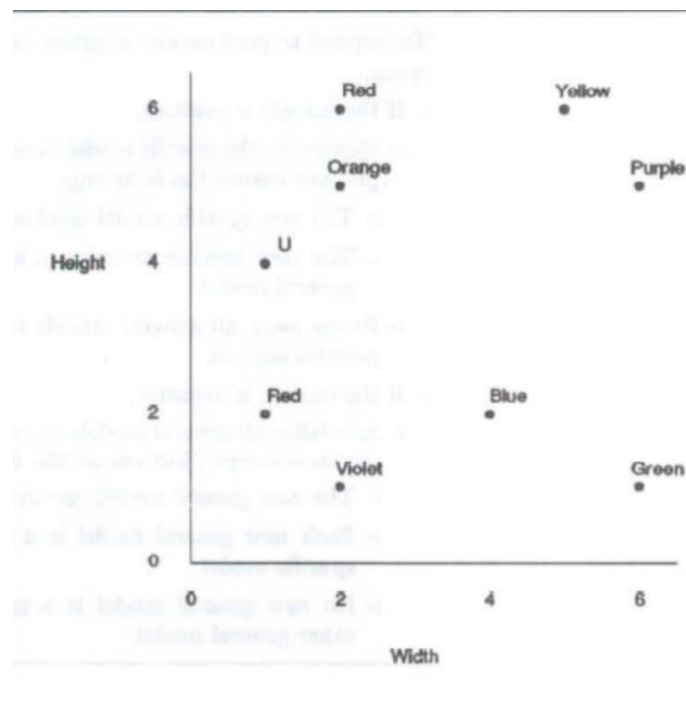


Instead of using same weights for voting, we can apply some other mechanisms as follows.

- Distance-based: $w = 1/d^2$
- Gaussian-based: $w = e^{-kd}$

Will the unknown object (U) be classified as Red or Orange if:

- Using distance-based metric.
- Using Gaussian-based metric with $k$ being 0.2 and 0.4 respectively