

# STAT 5014 Homework 5

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## Problem 3

If the figure is of data represented in a table, it should contain tidy data with proper labels on the rows and columns. If the figure is a graph, it should have proper axis labels, color and/or shading corresponding to different parts of the graph, a visually appealing layout, and an easy way to interpret what the plot is trying to show for people who might not be familiar with the subject.

## Problem 4

```
## [1] 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6
```

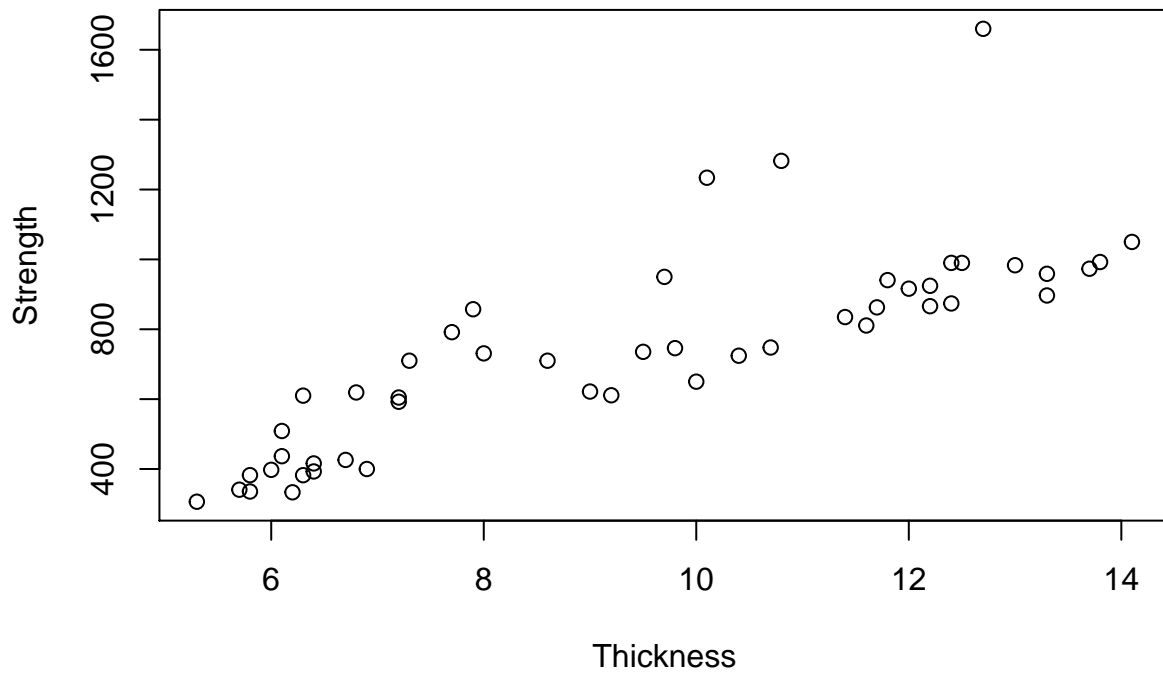
```
## [1] 1 1 1 1 0 0 0 0 1 1
```

```
## [1] 0.2 0.3 0.4 0.3 0.4 0.6 0.3 0.3 0.5 0.6
```

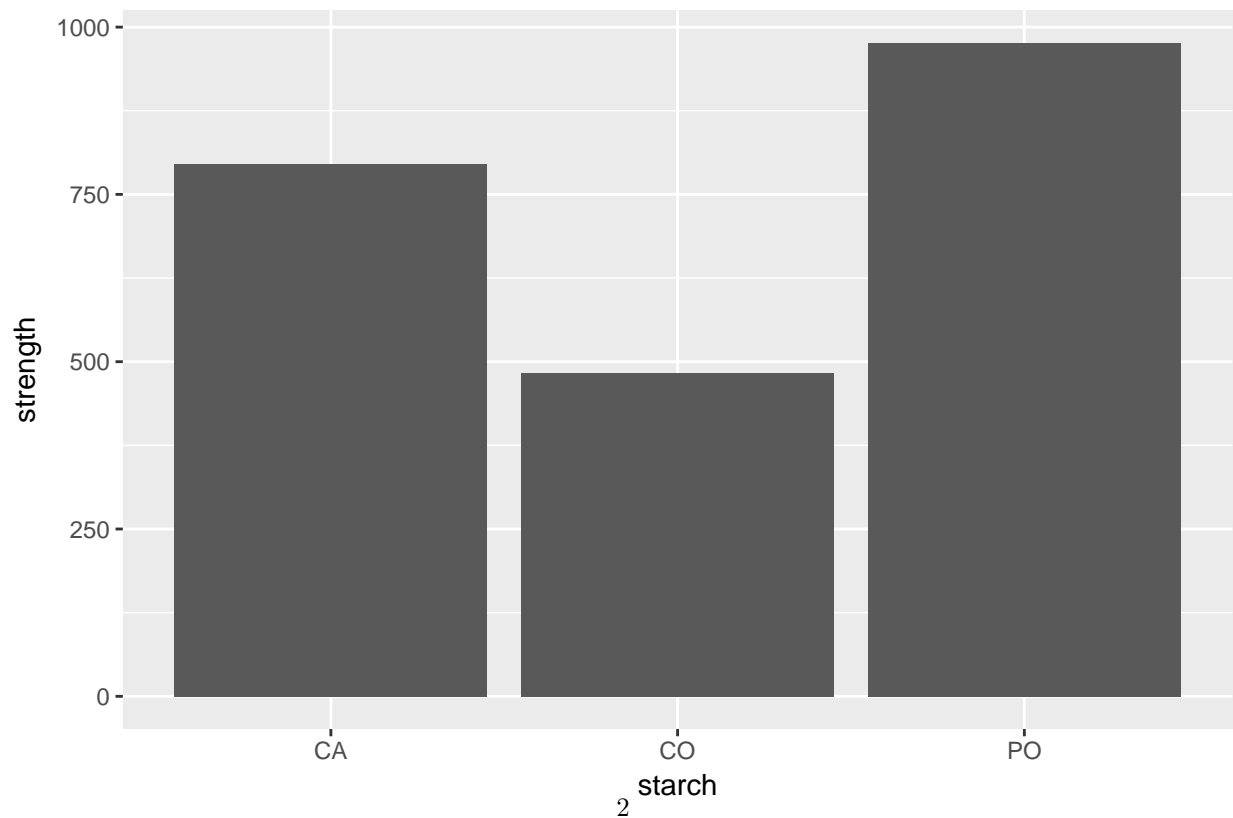
The proportion of successes in each column is the same, 0.6. The proportion of successes in each row is either 0 or 1. The last row is the vector of marginal success of each column of our matrix.

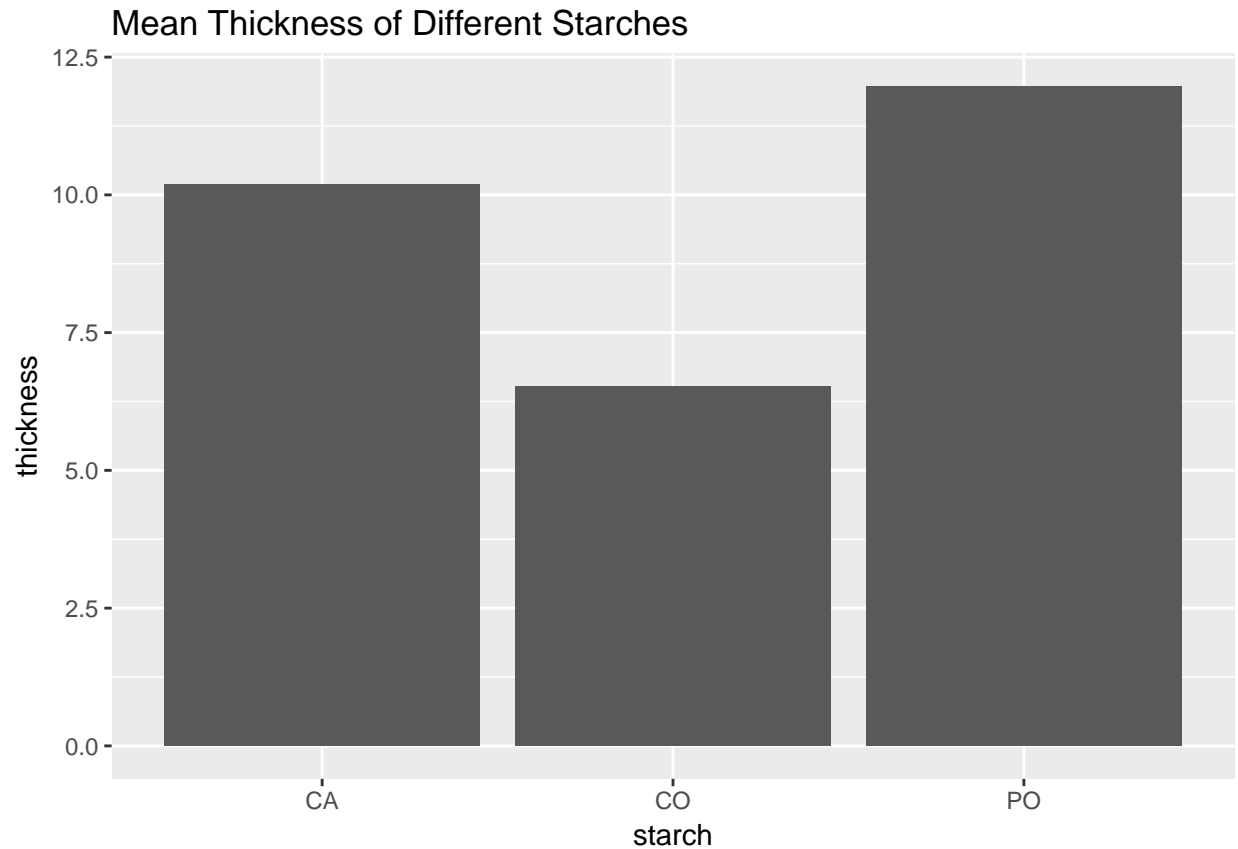
## Problem 5

**Starch Thickness vs, Strength**



**Mean Strength of Different Starches**





## Problem 6

```
## Warning: package 'downloader' was built under R version 3.4.2
```

```
##
```

```
## Attaching package: 'data.table'
```

```
## The following objects are masked from 'package:dplyr':
```

```
##
```

```
##      between, first, last
```

```
##           V2 V4 city_count
```

```
## 1:      California CA      2651
```

```
## 2:      Colorado CO       659
```

```
## 3:    Connecticut CT       438
```

```
## 4: District of Columbia DC    284
```

```
## 5:      Delaware DE        98
```

```
## 6:      Florida FL     1487
```

```
## 7:      Georgia GA      972
```

```
## 8:      Hawaii HI      139
```

```
## 9:      Iowa IA     1060
```

```
## 10:     Idaho ID       325
```

```
## 11:    Illinois IL     1587
```

```
## 12:    Indiana IN      989
```

```
## 13:    Kansas KS       756
```

```
## 14:   Kentucky KY      961
```

## 15:	Louisiana LA	725
## 16:	Massachusetts MA	703
## 17:	Maryland MD	619
## 18:	Maine ME	489
## 19:	Michigan MI	1170
## 20:	Minnesota MN	1031
## 21:	Missouri MO	1170
## 22:	Mississippi MS	533
## 23:	Montana MT	405
## 24:	North Carolina NC	1090
## 25:	North Dakota ND	407
## 26:	Nebraska NE	620
## 27:	New Hampshire NH	284
## 28:	New Jersey NJ	733
## 29:	New Mexico NM	426
## 30:	Nevada NV	253
## 31:	New York NY	2207
## 32:	Ohio OH	1446
## 33:	Oklahoma OK	774
## 34:	Oregon OR	484
## 35:	Pennsylvania PA	2208
## 36:	Rhode Island RI	91
## 37:	South Carolina SC	539
## 38:	South Dakota SD	394
## 39:	Tennessee TN	795
## 40:	Texas TX	2650
## 41:	Utah UT	344
## 42:	Virginia VA	1238
## 43:	Vermont VT	309
## 44:	Washington WA	732
## 45:	Wisconsin WI	898
## 46:	West Virginia WV	859
## 47:	Wyoming WY	195
##	V2 V4 city_count	