R Code And Tasks Chapter 7 (MAS 6003)

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December 29, 2016

Three way tables

- all three factors are responses

- one factor is fixed and 2 are responses

- two factors are fixed and one is an response

7.4.3 Example: ulcers and aspirin

```r
library(reshape2)
```

```
## Warning: package 'reshape2' was built under R version 3.3.2
```

```r
rm(list=ls())
load("data/MAS367-GLMs.RData", envir = e <- new.env())

aspirin <- e$aspirin
head(aspirin)
```

```
##    count aspirin.use ulcer.or.not type.of.ulcer
## 1     39     non.user        cases       gastric
## 2     25         user        cases       gastric
## 3     62     non.user     controls       gastric
## 4      6         user     controls       gastric
## 5     49     non.user        cases      duodenal
## 6      8         user        cases      duodenal
```

```r
dcast(aspirin,type.of.ulcer + ulcer.or.not ~ aspirin.use, value.var = "count")
```

```
##    type.of.ulcer ulcer.or.not user non.user
## 1        gastric        cases   25       39
## 2        gastric     controls    6       62
## 3       duodenal        cases    8       49
## 4       duodenal     controls    8       53
```

7.4.4

- $BC + A$
- $BC + AB$
- $BC + AC$