Load Packages

```
require(mosaic)
require(mosaicData)
```

Essential R Syntax

Function & arguments: `rflip(10)`

Optional arguments: `rflip(10, prob=0.3)`

Assignment: `x <- rflip(10, prob=0.3)`

Formula Interface

Used for graphics, statistics, inference, and modeling operations.

goal (y ~ x , data = mydata)

Read as: Calculate goal using mydata for y "broken down" by x, or "modeled by" x. Examples:

```
mean(age~homeless, data=HELPrct)
```

```
|  homeless   housed
|      36.4     35.0
```

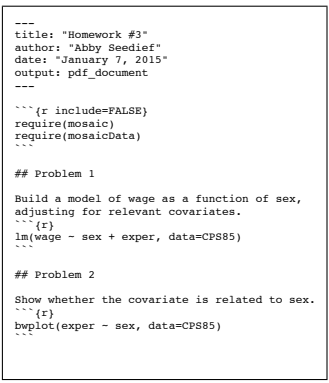
```
quantile(age~sex,data=HELPrct,p=c(.2,.8))
```

```
|     .group 20%  80%
|   1 female  30 42.8
|   2   male  29 41.0
```

```
tally(homeless~sex, data=HELPrct)
```

```
|             sex
|  homeless   female  male
|    homeless  0.374 0.488
|    housed    0.626 0.512
```

RMarkdown documents



```
---
title: "Homework #3"
author: "Abby Seedief"
date: "January 7, 2015"
output: pdf_document
---

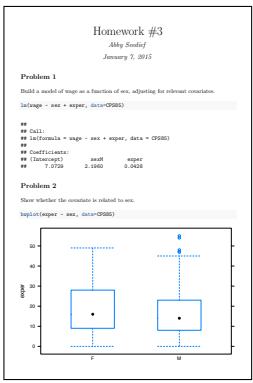
```{r include=FALSE}
require(mosaic)
require(mosaicData)
```

Problem 1

Build a model of wage as a function of sex,
adjusting for relevant covariates.
```{r}
lm(wage ~ sex + exper, data=CPS85)
```

Problem 2

Show whether the covariate is related to sex.
```{r}
bwplot(exper ~ sex, data=CPS85)
```
```



Homework #3

Abby Seedief

January 7, 2015

Problem 1

Build a model of wage as a function of sex, adjusting for relevant covariates.

```
lm(wage ~ sex + exper, data=CPS85)
```

```
##
## Call:
## lm(formula = wage ~ sex + exper, data = CPS85)
##
## Coefficients:
## (Intercept)         sexM        exper
##      7.0729       2.1660       0.0428
```

Problem 2

Show whether the covariate is related to sex.

```
bwplot(exper ~ sex, data=CPS85)
```


Compile to any of HTML, PDF, or Word.

See `mosaic plain` template through RStudio menu: File/New File/RMarkdown/From Template