```
set_parent("RPM-Parent.Rnw")

## Warning:  cannot open file 'RPM-Parent.Rnw':  No
such file or directory
## Error:  cannot open the connection
```

```
cat(getwd())
```

V:/My Documents/GitHub/RPM2014/Part2

Let's program.

```
set.seed(1234)
N = 100
e = rnorm(N, mean = 0, sd = 1)
B0 = 5
B1 = 1.5

X1 = rep(seq(1, 10), 10)
Y = B0 + B1 * X1 + e

myFit = lm(Y ~ X1)
```

```r
summary(myFit)
```

```
##
## Call:
## lm(formula = Y ~ X1)
##
## Residuals:
##    Min     1Q Median     3Q    Max
## -2.188 -0.742 -0.228  0.629  2.709
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)   4.8383     0.2181    22.2   <2e-16 ***
## X1            1.5009     0.0351    42.7   <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.01 on 98 degrees of freedom
## Multiple R-squared:  0.949, Adjusted R-squared:  0.948
## F-statistic: 1.82e+03 on 1 and 98 DF,  p-value: <2e-16
```

Assigned values to a variable. (i.e. entered numbers into a cell in a spreadsheet)
EVery variable is a vector. Think of a set of cells in a spreadsheet.
Vectors may be used in arithmetic operations: $Y = B0 + B1 * X1 + e$

Data frames

```
df = data.frame(Y = Y, X1 = X1, e = e)
```