hw3 p32

```
data <- read.table("throughput.dat", header = TRUE)
data$Day <- as.factor(data$Day)
data$Operator <- as.factor(data$Operator)
model <- lm(data$Throughput ~ data$Day + data$Operator + data$Machine + data$Method)
anova(model)
```

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
	<int>	<dbl>	<dbl>	<dbl>	<dbl>
data$Day	4	125.2	31.3	1.534314	2.806024e-01
data$Operator	4	167.2	41.8	2.049020	1.800250e-01
data$Machine	4	3424.8	856.2	41.970588	2.062258e-05
data$Method	4	2857.6	714.4	35.019608	4.075442e-05
Residuals	8	163.2	20.4	*NA*	*NA*

5 rows

```
mean(data[data$Method == 'A',]$Throughput)
```

```
## [1] 99
```

```
mean(data[data$Method == 'B',]$Throughput)
```

```
## [1] 110.6
```

```
mean(data[data$Method == 'C',]$Throughput)
```

```
## [1] 95
```

```
mean(data[data$Method == 'D',]$Throughput)
```

```
## [1] 124.4
```

```
mean(data[data$Method == 'E',]$Throughput)
```

```
## [1] 115
```