

Height and Weight Example, comparing t-test and F-test

```
> RegModel.1 <- lm(Weight~Height, data=WtHt)
```

```
> summary(RegModel.1)
```

Call:

```
lm(formula = Weight ~ Height, data = WtHt)
```

Residuals:

Min	1Q	Median	3Q	Max
-45.779	-15.783	-3.787	14.207	58.213

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-317.919	110.922	-2.866	0.00653	**
Height	6.996	1.581	4.425	6.98e-05	***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.'
0.1 ' ' 1

Residual standard error: 24 on 41 degrees of freedom

Multiple R-squared: 0.3232, Adjusted R-squared:
0.3067

F-statistic: 19.58 on 1 and 41 DF, p-value: 6.978e-05

```
> anova(RegModel.1)
```

Analysis of Variance Table

Response: Weight

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
Height	1	11277	11277	19.578	6.978e-05	***
Residuals	41	23617	576			

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.'
0.1 ' ' 1