```
> # Some examples of ANOVA tables and F-testing

> ####################################################################

> names(prestige)
[1] "education"    "income"       "pct.female"   "occ.prestige" "occ.code"
[6] "occ.type"

> ####################################################################

> summary(lm(occ.prestige ~ occ.type + education + income + pct.female,
+ data=prestige))

Call: lm(formula = occ.prestige ~ occ.type + education + income + pct.female,
      data = prestige)
Residuals:
    Min     1Q   Median    3Q   Max
 -17.85 -4.883 -0.02936 5.516 18.86

Coefficients:
              Value Std. Error t value Pr(>|t|)
(Intercept)  0.7008  6.7909     0.1032  0.9180
  occ.type1  0.9833  2.0318     0.4839  0.6295
  occ.type2  2.3742  1.3431     1.7677  0.0803
  occ.type3 -0.9597  0.5650    -1.6986  0.0927
  education  3.4513  0.6572     5.2513  0.0000
     income  0.0012  0.0003     4.3745  0.0000
 pct.female  0.0062  0.0310     0.1995  0.8423

Residual standard error: 7.586 on 95 degrees of freedom
Multiple R-Squared: 0.8171
F-statistic: 70.74 on 6 and 95 degrees of freedom, the p-value is 0

Correlation of Coefficients:
           (Intercept) occ.type1 occ.type2 occ.type3 education  income
 occ.type1 -0.2768
 occ.type2  0.7170      0.3020
 occ.type3  0.1227      0.4329    0.3328
 education -0.9305      0.1929   -0.7001   -0.1327
    income  0.0719     -0.1636   -0.0933    0.0081   -0.3789
pct.female -0.1623     -0.0156   -0.1420   -0.2873   -0.1071    0.5237
```

```
> anova(lm(occ.prestige ~ occ.type + education + income + pct.female,
+ data=prestige))
Analysis of Variance Table

Response: occ.prestige

Terms added sequentially (first to last)
           Df Sum of Sq  Mean Sq  F Value     Pr(F)
  occ.type  3  19475.22 6491.739 112.7921 0.0000000
 education  1   3504.18 3504.182  60.8842 0.0000000
    income  1   1446.02 1446.022  25.1242 0.0000025
pct.female  1      2.29    2.291   0.0398 0.8423002
 Residuals 95   5467.72   57.555

> ####################################################################

> anova(lm(occ.prestige ~ education + income + pct.female + occ.type,
+ data=prestige))
Analysis of Variance Table

Response: occ.prestige

Terms added sequentially (first to last)
           Df Sum of Sq  Mean Sq  F Value     Pr(F)
 education  1  21608.44 21608.44 375.4404 0.0000000
    income  1   2248.14  2248.14  39.0608 0.0000000
pct.female  1      5.28     5.28   0.0917 0.7626279
  occ.type  3    565.85   188.62   3.2772 0.0243745
 Residuals 95   5467.72    57.55

> ####################################################################

> anova(lm(occ.prestige ~ pct.female + education + income + occ.type,
+ data=prestige))
Analysis of Variance Table

Response: occ.prestige

Terms added sequentially (first to last)
           Df Sum of Sq  Mean Sq  F Value      Pr(F)
pct.female  1    418.63   418.63   7.2735 0.00827981
 education  1  22066.52 22066.52 383.3995 0.00000000
    income  1   1376.71  1376.71  23.9200 0.00000408
  occ.type  3    565.85   188.62   3.2772 0.02437453
 Residuals 95   5467.72    57.55
```