1. The data file Nested.csv includes outcomes of patients in two hospitals. Different combination of drugs and conditions can be tested
   1. D2 and C6 as factors

H1 H2

D1 D2 D1 D2

C1 C2 C3 C4 C5 C6 C1 C2 C3 C4 C5 C6

What is nested, what are the factors in the model and what are the df?

Run the analysis

> anova(lm(Y ~ H + Dtwo + H\*Dtwo + Csix/Dtwo + H \*(Csix/Dtwo) , data=nested))

Analysis of Variance Table

Response: Y

Df Sum Sq Mean Sq F value Pr(>F)

H 1 0.02 0.0191 0.0021 0.9633

Dtwo 1 0.01 0.0088 0.0010 0.9751

Csix 4 39.30 9.8246 1.0970 0.3622

H:Dtwo 1 0.08 0.0764 0.0085 0.9266

H:Csix 4 0.75 0.1884 0.0210 0.9991

Residuals 102 913.47 8.9556

>

* 1. D4 and Ctwelve as factors

H1 H2

D1 D2 D3 D4

C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12

What is nested, what are the factors in the model and what are the df?

Run the analysis

> anova(lm(Y ~ H + H/Dfour + H/Ctwelve + H/Dfour/Ctwelve, data=nested))

Analysis of Variance Table

Response: Y

Df Sum Sq Mean Sq F value Pr(>F)

H 1 0.02 0.0191 0.0021 0.9633

Dfour 2 0.09 0.0426 0.0048 0.9953

H:Ctwelve 8 40.05 5.0065 0.5590 0.8090

Residuals 102 913.47 8.9556