>> stats(b.time,b.length)

2 4 6 8

N 6.00000 6.00000 6.00000 6.00000

Mean 0.30833 0.43667 0.69667 0.87833

Std. Dev. 0.20875 0.17131 0.10501 0.36570

Q1 0.11000 0.30500 0.60000 0.57750

Median 0.30000 0.41500 0.69500 0.76500

Q3 0.46750 0.56250 0.78250 1.25750

Min 0.08000 0.23000 0.57000 0.51000

Max 0.64000 0.72000 0.85000 1.43000

Range 0.56000 0.49000 0.28000 0.92000

>> stats(b.time,b.type)

1 2

N 12.00000 12.00000

Mean 0.71833 0.44167

Std. Dev. 0.33542 0.22831

Q1 0.42500 0.23000

Median 0.68000 0.51000

Q3 0.86500 0.64000

Min 0.33000 0.08000

Max 1.43000 0.74000

Range 1.10000 0.66000

>> mfit(b.time,b.length,b.type)

Overall Mean

0.58

Fitted Main Effect of Y variable , y, by X variable, x1

Source N Main Effect

2 6 -0.27167

4 6 -0.14333

6 6 0.11667

8 6 0.29833

Fitted Main Effect of Y variable , y, by X variable, x2

Source N Main Effect

1 12 0.13833

2 12 -0.13833

Table of 2-way x1 by x2 Interaction Effects

x1

2 4 6 8

x2 1 0.026667 -0.068333 -0.10833 0.15

2 -0.026667 0.068333 0.10833 -0.15

**ANOVA**

lm>> model time = length + type + length\*type

Sequential Sums of Squares ANOVA Table

Source df SS MS F P-val

length 1 1.16430 1.16430 37.9245 5.1256e-06

type 1 0.45927 0.45927 14.9600 0.00095817

length\*type 1 0.03267 0.03267 1.0642 0.31458000

Error 20 0.61399 0.03070

R-square 0.72954

Standard Error 0.17521

lm>> model log(time) = length + type + length\*type

Sequential Sums of Squares ANOVA Table

Source df SS MS F P-val

length 1 5.15770 5.15770 37.9233 5.1267e-06

type 1 2.03210 2.03210 14.9414 0.00096357

length\*type 1 0.30955 0.30955 2.2760 0.14703000

Error 20 2.72010 0.13600

R-square 0.73383

Standard Error 0.36879

**Regression**

lm>> model time = length + type + length\*type

Sequential Sums of Squares ANOVA Table

Source df SS MS F P-val

Intercept 1 8.07360 8.07360 262.9866 5.6632e-13

length 1 1.16430 1.16430 37.9245 5.1256e-06

type 1 0.45927 0.45927 14.9600 0.00095817

length\*type 1 0.03267 0.03267 1.0642 0.31458000

Error 20 0.61399 0.03070

R-square 0.72954

Standard Error 0.17521

Parameter Estimates

Source Parameter Estimate Std. Error t p-val

Intercept 0.25500 0.277040 0.92046 0.3683000

length 0.14800 0.050580 2.92610 0.0083528

type -0.11167 0.175210 -0.63732 0.5311500

length\*type -0.03300 0.031989 -1.03160 0.3145800

lm>> model log(time) = length + type + length\*type

Sequential Sums of Squares ANOVA Table

Source df SS MS F P-val

Intercept 1 12.36810 12.36810 90.9397 6.9879e-09

length 1 5.15770 5.15770 37.9233 5.1267e-06

type 1 2.03210 2.03210 14.9414 0.00096357

length\*type 1 0.30955 0.30955 2.2760 0.14703000

Error 20 2.72010 0.13600

R-square 0.73383

Standard Error 0.36879

Parameter Estimates

Source Parameter Estimate Std. Error t p-val

Intercept -0.11968 0.583100 -0.20525 0.8394600

length 0.05495 0.106460 0.51616 0.6114000

type -1.08990 0.368790 -2.95520 0.0078245

length\*type 0.10158 0.067331 1.50860 0.1470300