

Estimate the beta.hats for each level combination

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```
rm(list=ls())

data(mtcars)
mtcars$gear <- factor(mtcars$gear)
mtcars$cyl <- factor(mtcars$cyl)

## to get the individual combinations, you have to add them together yourself
print(model <- lm(mpg ~ cyl * gear, data=mtcars))

##
## Call:
## lm(formula = mpg ~ cyl * gear, data = mtcars)
##
## Coefficients:
## (Intercept)      cyl6      cyl8      gear4      gear5  cyl6:gear4
##      21.500      -1.750      -6.450       5.425       6.700      -5.425
##  cyl8:gear4  cyl6:gear5  cyl8:gear5
##         NA      -6.750      -6.350

## this way you get the estimate for each level
mtcars$int <- interaction(mtcars$gear, mtcars$cyl)
print(model.int <- lm(mpg ~ int + 0, data=mtcars))

##
## Call:
## lm(formula = mpg ~ int + 0, data = mtcars)
##
## Coefficients:
## int3.4 int4.4 int5.4 int3.6 int4.6 int5.6 int3.8 int5.8
##  21.50  26.92  28.20  19.75  19.75  19.70  15.05  15.40
```