

Exer 5.1

[s2009/s2009-24]

There is a correspondence between the model formula and the coefficients found when fitting a model.

For each of the following model formulas, tell what the coefficient is:

(a) $3 - 7x + 4y + 17z$

– Intercept: $\underline{-7}$ $\underline{3}$ $\underline{4}$ $\underline{17}$ Exer 5.1-1

– z coef: $\underline{-7}$ $\underline{3}$ $\underline{4}$ $\underline{17}$ Exer 5.1-2

– y coef: $\underline{-7}$ $\underline{3}$ $\underline{4}$ $\underline{17}$ Exer 5.1-3

– x coef: $\underline{-7}$ $\underline{3}$ $\underline{4}$ $\underline{17}$ Exer 5.1-4

(b) $1.22 + 0.12age + 0.27educ - 0.04age : educ$

– Intercept: $\underline{-0.04}$ $\underline{0.12}$ $\underline{0.27}$ $\underline{1.22}$ Exer 5.1-5

– $educ$ coef: $\underline{-0.04}$ $\underline{0.12}$ $\underline{0.27}$ $\underline{1.22}$ Exer 5.1-6

– age coef: $\underline{-0.04}$ $\underline{0.12}$ $\underline{0.27}$ $\underline{1.22}$ Exer 5.1-7

– $age:educ$ coef: $\underline{-0.04}$ $\underline{0.12}$ $\underline{0.27}$ $\underline{1.22}$ Exer 5.1-8

(c) $8 + 3colorRed - 4colorBlue$

– Intercept: $\underline{-4}$ $\underline{3}$ $\underline{8}$ Exer 5.1-9

– $colorRed$ coef: $\underline{-4}$ $\underline{3}$ $\underline{8}$ Exer 5.1-10

– $colorBlue$ coef: $\underline{-4}$ $\underline{3}$ $\underline{8}$ Exer 5.1-11