

## Task 1:

Without doing any calculations in R, explain why the regression

$$fage = \beta_0 + \beta_1 \cdot mheight + \beta_2 \cdot Birthweight + \varepsilon$$

cannot be meaningful.

## Task 2

Find a meaningful and theory guided multiple regression model with at least three independent variables. Sketch your theory behind your model. One of the independent variables must be a binary variable. Think about possible interaction variables and explain, why you use or why you do not use an interaction variable in your model. Run your regression and interpret the results. In a next step, test if the assumptions for a General Linear Model are met and adjust your model, if necessary.