Multicollinearity and Singularity

- Multicollinearity: when two or more variables are highly correlated (tested by examining VIF value for each variable).
- Singularity: redundancy (e.g., one of the variables is a combination of two or more of the other IVs).
- We can use collinearity diagnostics to see if we have a possible problem…

Assumptions: no multicollinearity among predictors

- VIF stands for Variance Inflation Factor. Essentially, it tells us about when we have to worry about (multi)collinearity. We can ask for VIF to any model in R by using the function `vif()` in the `car` package.

- So when do you worry?

- As a rule of thumb VIF greater than 10 suggests a multicollinearity issue (although greater than 5 has been suggested too - more conservative).