Rating ~(AGE\*GENDER\*PROFICIENCY)^(N)

N can be 1 2 3. 1 if you just want main effects. 2 if you want interaction effects for combinations of 2.3 if you want three way interactions.

To be able to produce the slope and intercept change based on the summary. Some variables change the slope and some intercept. Also interaction plays a part.

She may ask to draw a basic representation of the slopes calculated for each situation. Like what is the line like when the participant is women and at the age of mean + sd1.

Read the Navora book on nestor for a possible clear explanation

You can build model with just intercept like the following

Rating ~1