**Backward Elimination**

Step 1: Select a significance level to stay in the model (e.g. SL=0.05)

Step 2: Fit the full model with all possible predictors

Step 3: Consider the predictor with the highest P-value. If P > SL, go to Step 4, otherwise go to FIN

Step 4: Remove the predictor

Step 5: Fit model without this variable\* (have to rebuild the model without the variable)

**FIN:** Your Model is Ready

**Forward Selection**

Step 1: Select a significance level to enter the model (e.g. SL=0.05)

Step 2: Fit all simple regression models y ~Xn Select the one with the lowest P-value

Step 3: Keep this variable and fill all possible models with the one extra predictor added to the one(s) you already have

Step 4: Consider the predictor with the lowest P-value. If P < SL, go to Step 3. Otherwise FIN

**FIN:** Keep the Previous Model

**Bidirectional Elimination**

Step 1: Select a significance level to enter and stay in the model (e.g. SLENTER=0.05, SLSTAY=)>)%

Step 2: Perform the next stem of Forward Selection (new variables must have : P < SLENTER to enter)

Step 3: Perform All steps of Backward Elimination (old variables must have P<SLSTAY to stay)

Step 4: No new variables can enter and no old variables can exit

**FIN:** Your Model is Ready

**All Possible Models**

Step 1: Select a criterion of goodness of fit(e.g. Akaike criterion)

Step 2: Construct All possible regression models 2^n-1 total combinations

Step 3: Select the one with the best criterion

**FIN:** Your Model is Ready