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Using Models 2

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Chart, box and whisker chart

Description automatically generated

Q1:

Q2: I do not believe that male penguins if any sex are much heavier in any of the species, because if you look at the boxplot, the boxes are similar in size and not very spread out.

Q3: I think adding sex to a model that already includes species will improve the model fix because although it has more parameters, it will give a better understanding of the relationship while still being easier to interpret.

Q4: fit\_both =

lm(

formula = body\_mass\_g ~ sex, species,

data = penguins)

Q5: The base case is 3368.8

Q6: The first two coefficients are intercept and sexmale.

Q7: The predicted average mass for female Chinstrap penguins from the interactive model is 158.4

Q8: The observed average mass for female Chinstrap penguins calculated from the penguins data is 305.2.