Quiz 5

1 – Which of the following is not a reason that multivariable modeling is preferred over single-variable modeling?

* Collinearity
* **Homoscedasticity**
* Interactions
* Pseudoreplication

2 – If collinearity exists among independent variables (X) that all influence the response variable (Y), what problem occurs when running analyses using only single X-variables?

* Swamping
* **Bias in estimates**
* Variance inflation
* Interactions

3 – Multi-variable analyses overcome the problem mentioned in Question #2, but it introduces a new problem. What problem exists in multi-variable analyses when X-variables are collinear?

* Bias in estimates
* **Variance inflation**
* Interactions
* Swamping

4 – Which of the following is not a symptom of collinearity among you X-variables?

* Model p-value is significant, but individual variables aren’t significant
* High r^2 among X-variables
* **Betas close to zero**
* High VIF scores
* Coefficients change when adding or removing variables from models

5 – What is swamping?

* When the effect of one X-variable depends on the value of another X-variable
* **When the ability to detect the effect of one variable is masked by the effect of another variable**
* When two or more X-variables are correlated with each other
* When leaving one or more X-variables out of the model introduced bias in the estimated effects of other X-variables in the model