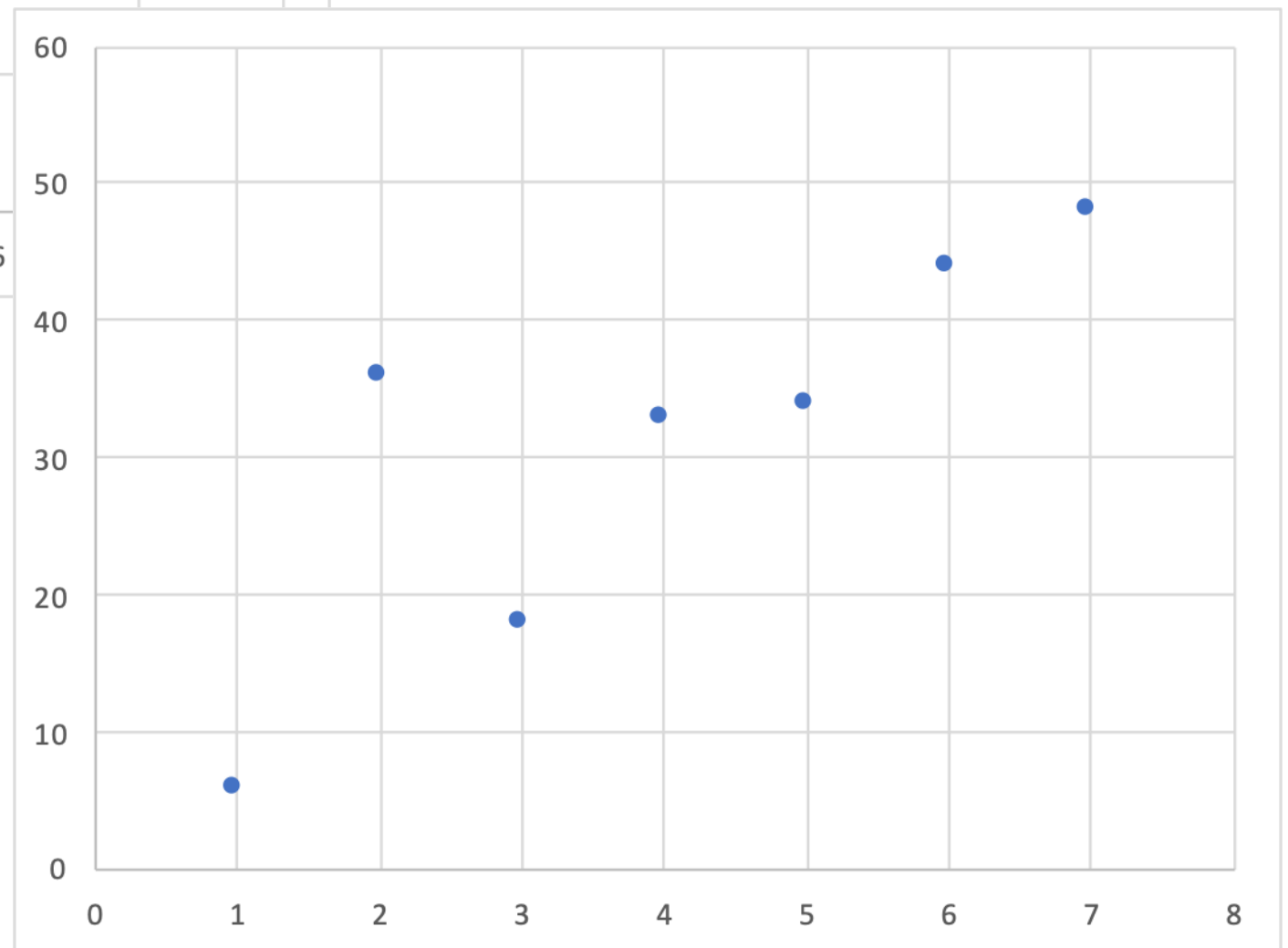
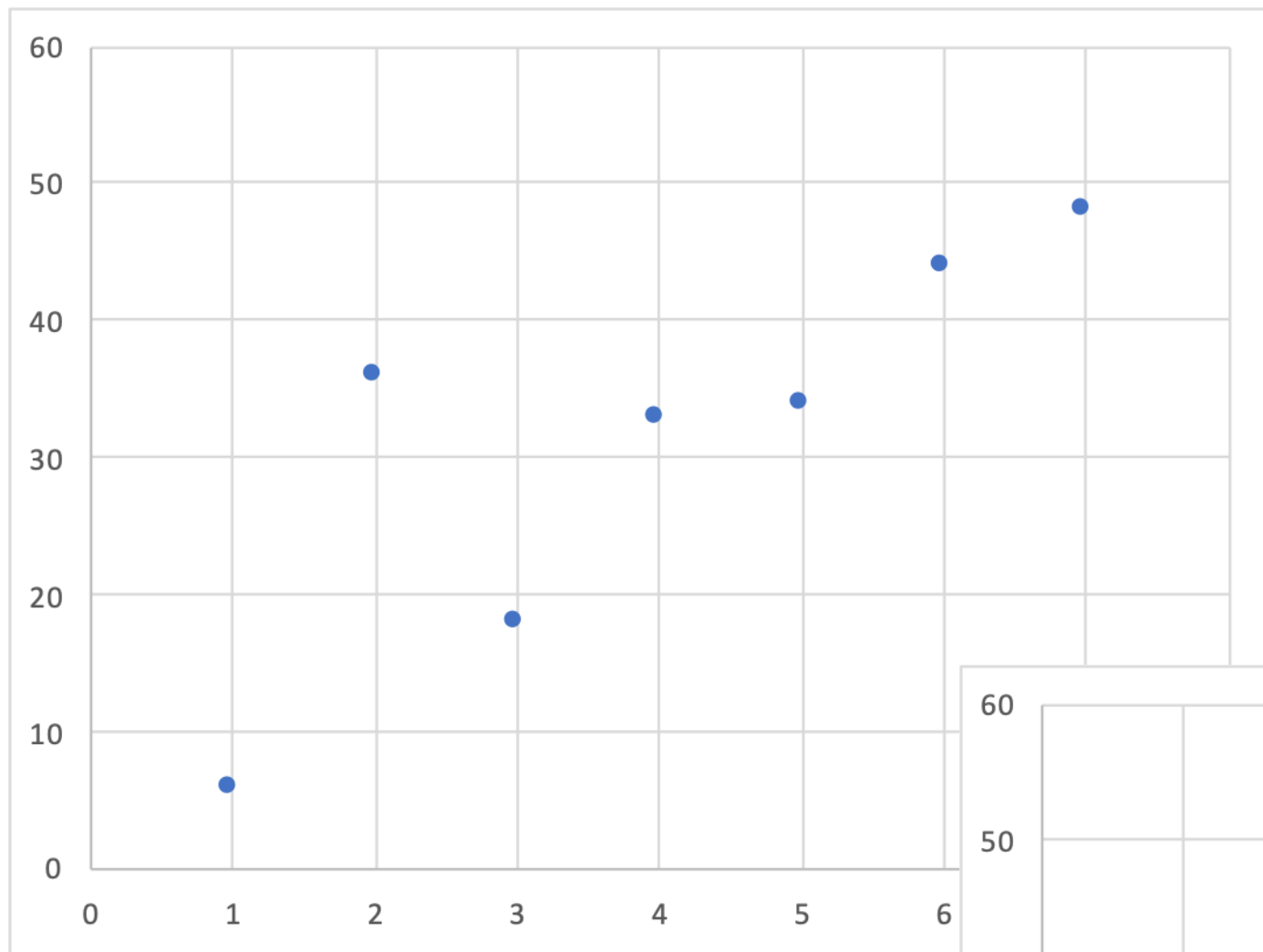
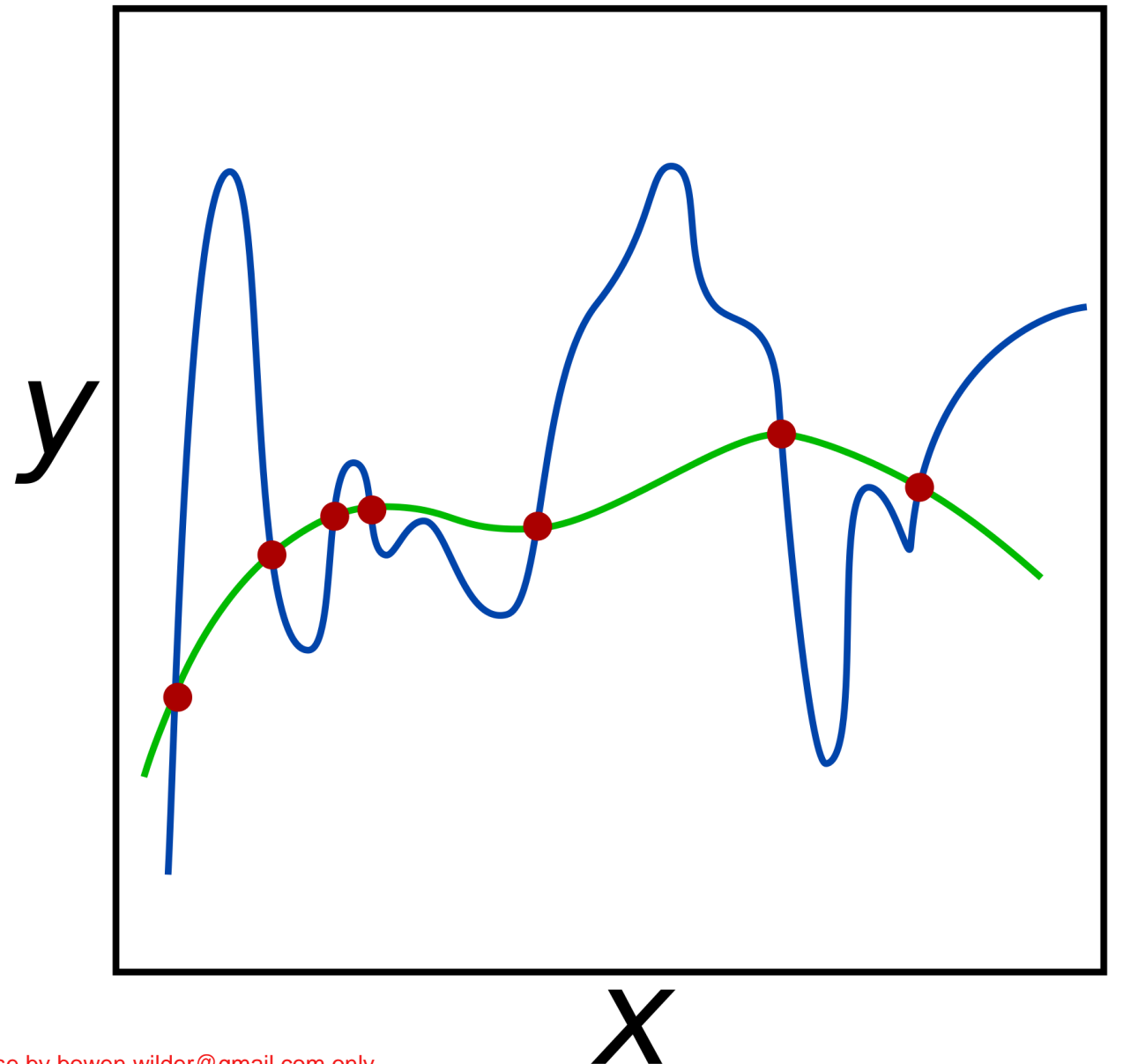


# Regularization



# Simpler is better

- “the simplest explanation is most likely the right one” (Occam's razor, Law of Parsimony)
- In Statistics and ML, Regularization prevents overfitting by setting up a preference for simple models



# Regularization in Linear Regression

- Accomplished by adding a penalty for complexity!
- The common penalties are of the p-norm type
  - The 1-norm is used in LASSO Regression (induces sparsity)
  - The 2-norm is used in Ridge Regression

