Hw1

1. CHURCH PERIMETER: In *Church*0.*csv* one has data on the perimeter and the area of 25 romanesque churches. Build a linear model to try to explain the perimeter of the church as a function of its area.

2. BRAIN WEIGHT: Build a linear model to try to explain the brain weight of a mammal as a function of its body weight through the data for 62 mammals in *Brains0.csv*.

   (What are the residuals for the primates in the sample, and what could that mean?)

   (What happens to the fitted model when, on top of the 62 mammals, you also consider the data for Diplodocus (BodyWeight=11700, BrainWeight=50), Triceratops (9400, 70), and Brachiosaurus (87000, 154.5)? Does the linear model fit by least squares to all 65 observations make sense? What would happen if you did not know the difference between dinosaurs and mammals?)