The file `babyboomerdivorce.csv` contains data on the rate of baby-boomer divorce. The independent variables are marriage age (x) and years of school (y).

(a) Formulate regression problems for the following models:

$$z(x, y) = \theta_{00} + \theta_{10}x + \theta_{01}y$$
$$z(x, y) = \theta_{00} + \theta_{10}x + \theta_{01}y + \theta_{11}xy$$
$$z(x, y) = \theta_{00} + \theta_{10}x + \theta_{01}y + \theta_{11}xy + \theta_{20}x^2 + \theta_{02}y^2$$

(b) Solve each regression and report best-fit parameters and uncertainties.

(c) Compute leave-one-out cross validation error for each model and compare.

(d) Solve the model $z(x, y) = \theta_{00} + \theta_{10}x + \theta_{01}y$ using the 1-norm. Report parameters.