In this assignment, you will use the same set of drug response data to complete a learning and a control problem. The data are found in `dose.txt` and `response.txt`.

(a) Find the best fitting model of the type $y = \theta_1 e^{-x_1}$ using the l_2 norm

(b) The side effects of the drug are a function of both the response and the dosage. A separate team has given you the model $f = x_1 y^2 - x_1 y$. What dosage minimizes the side effects of the drug?

(c) In future problems, you will consider how the uncertainty in parameter estimation propagates back to data space. How does the recommended dosage of this drug change as θ_1 changes?