

# Unit 7 Pre-Class Warm-up

*w203 Instructional Team*

## Maximum Likelihood Overview

Each time Paul Laskowski attempts a joke in class, he secretly records the number of students that laugh (Sometimes, the Human Subjects Board is just in a great mood). Paul gives you a dataset of 500 jokes and insists that you model each observation as an independent random variable that's distributed according to the HyperGaussian distribution, which has a single parameter,  $h \in \mathbb{R}$ . The probability density function of this distribution can be written  $f_H(x; h)$ .

In your own words, list the four or five key steps you would take to perform a maximum likelihood estimate of  $h$ . (Just a sentence per step)