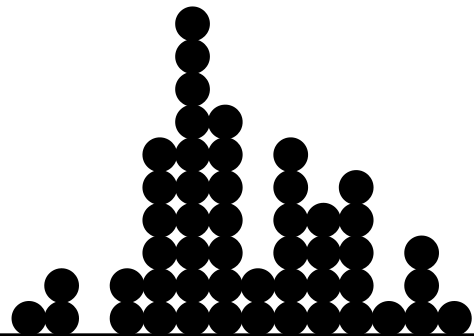


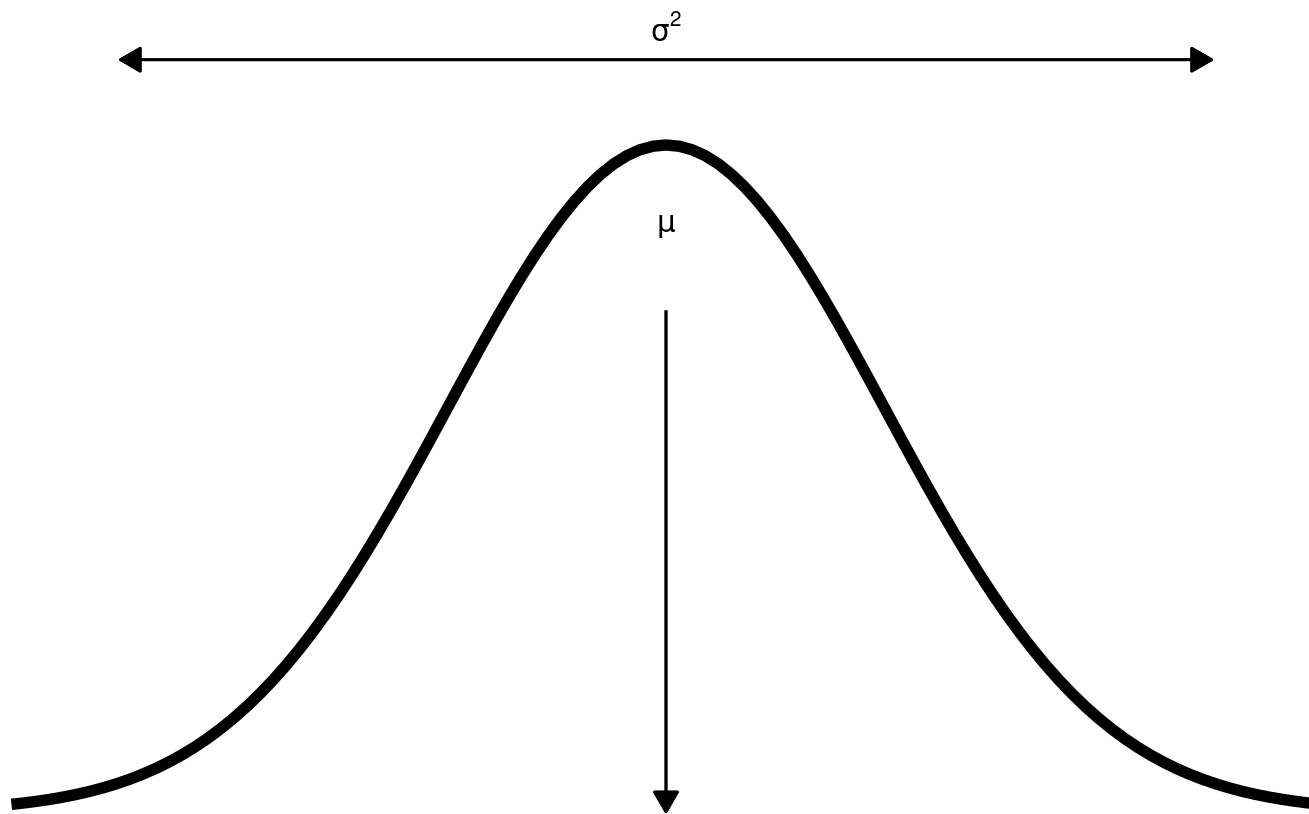
Maximum Likelihood Estimation

The motivation

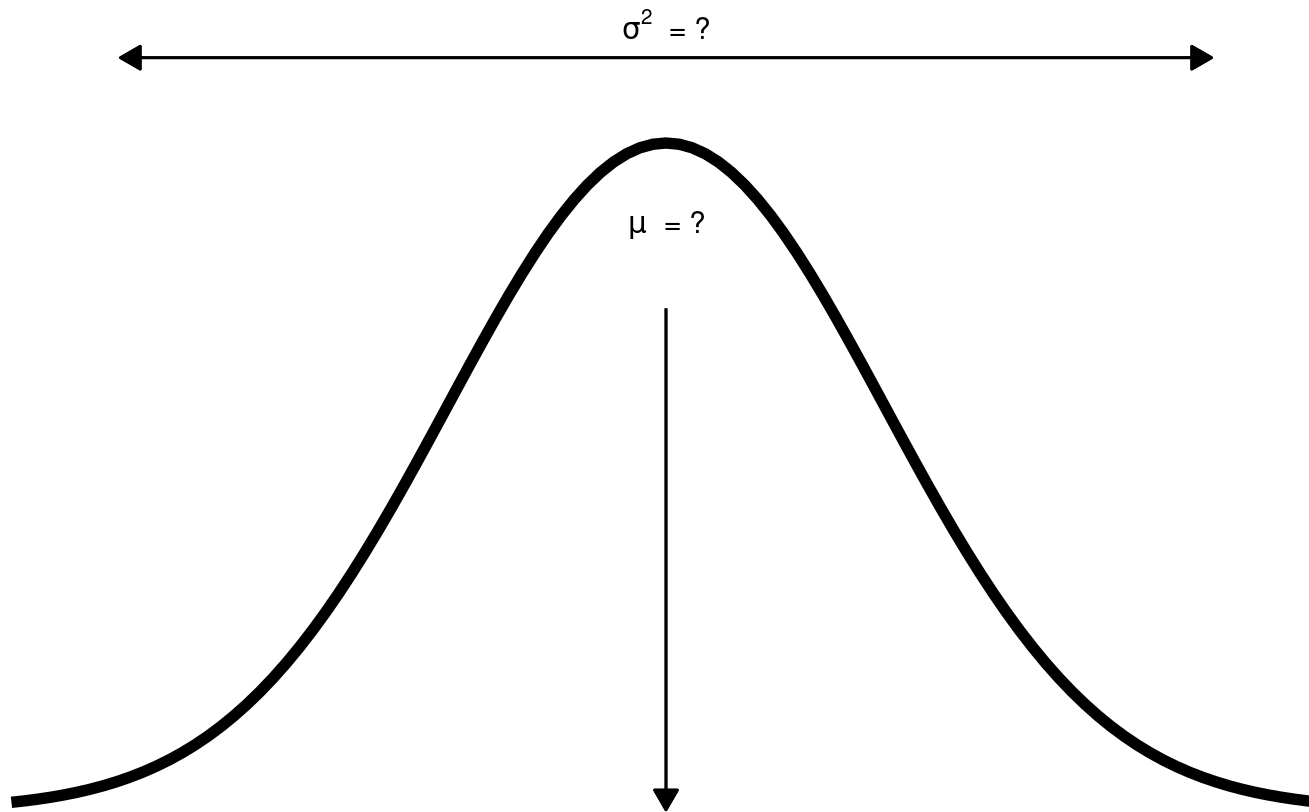
So, we have a sample of data



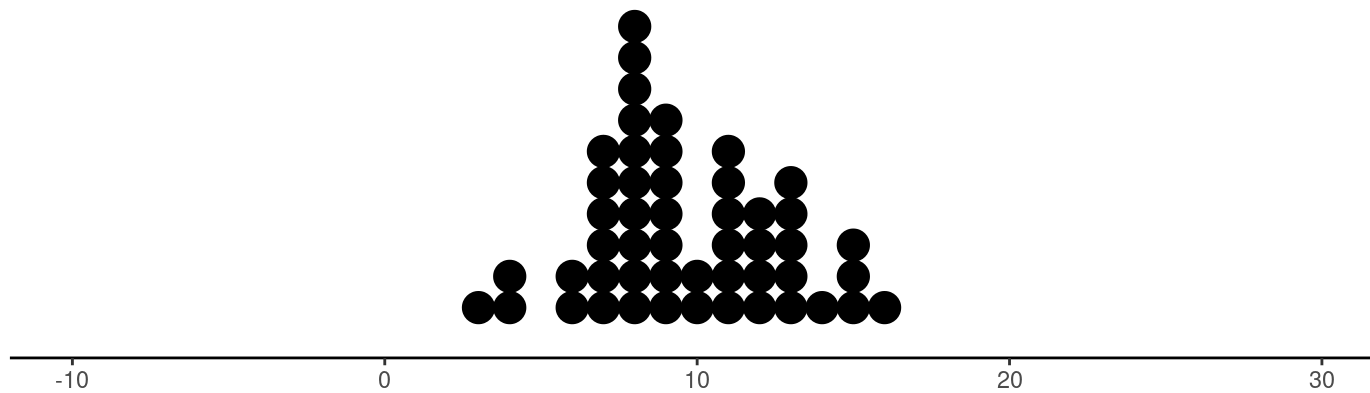
We assume that these data come from some known distribution with certain parameters



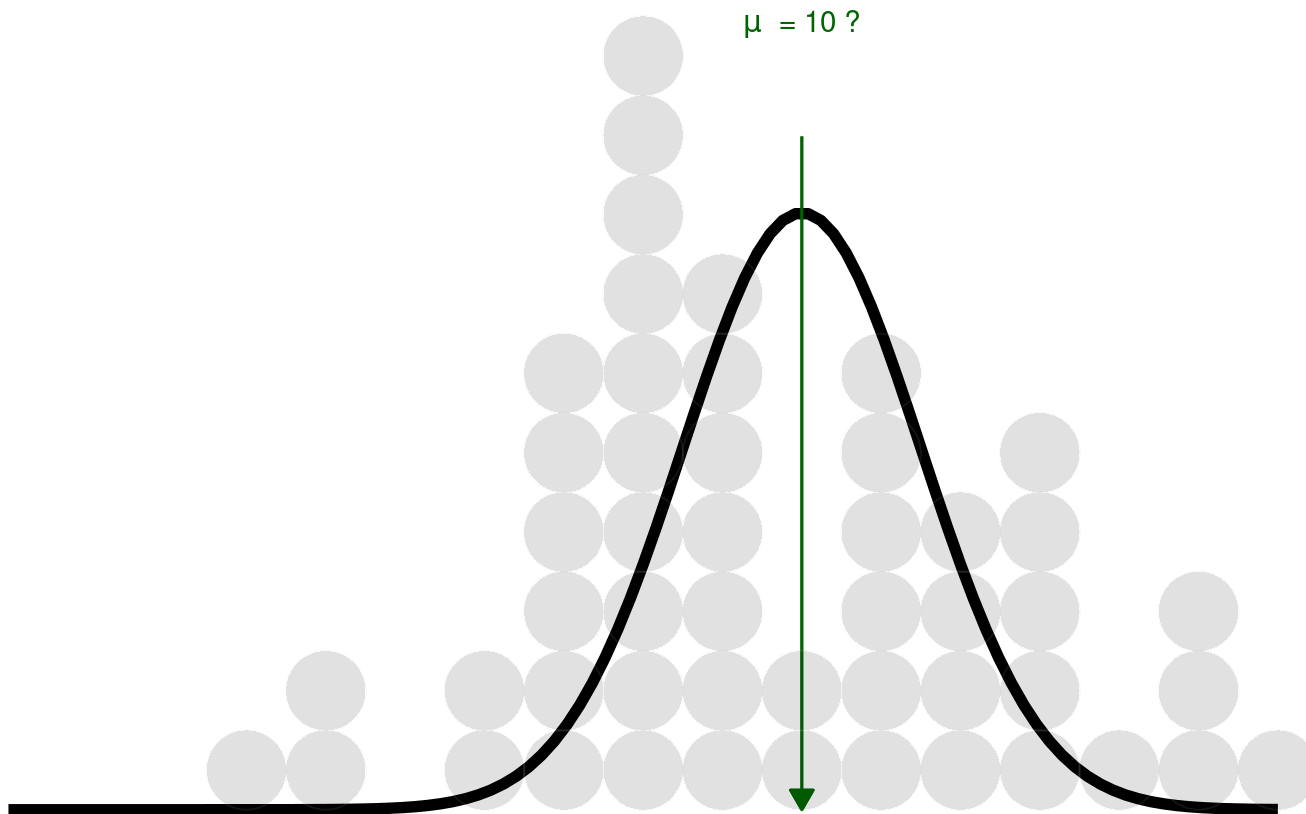
And we want to find our “best guess” for these parameters



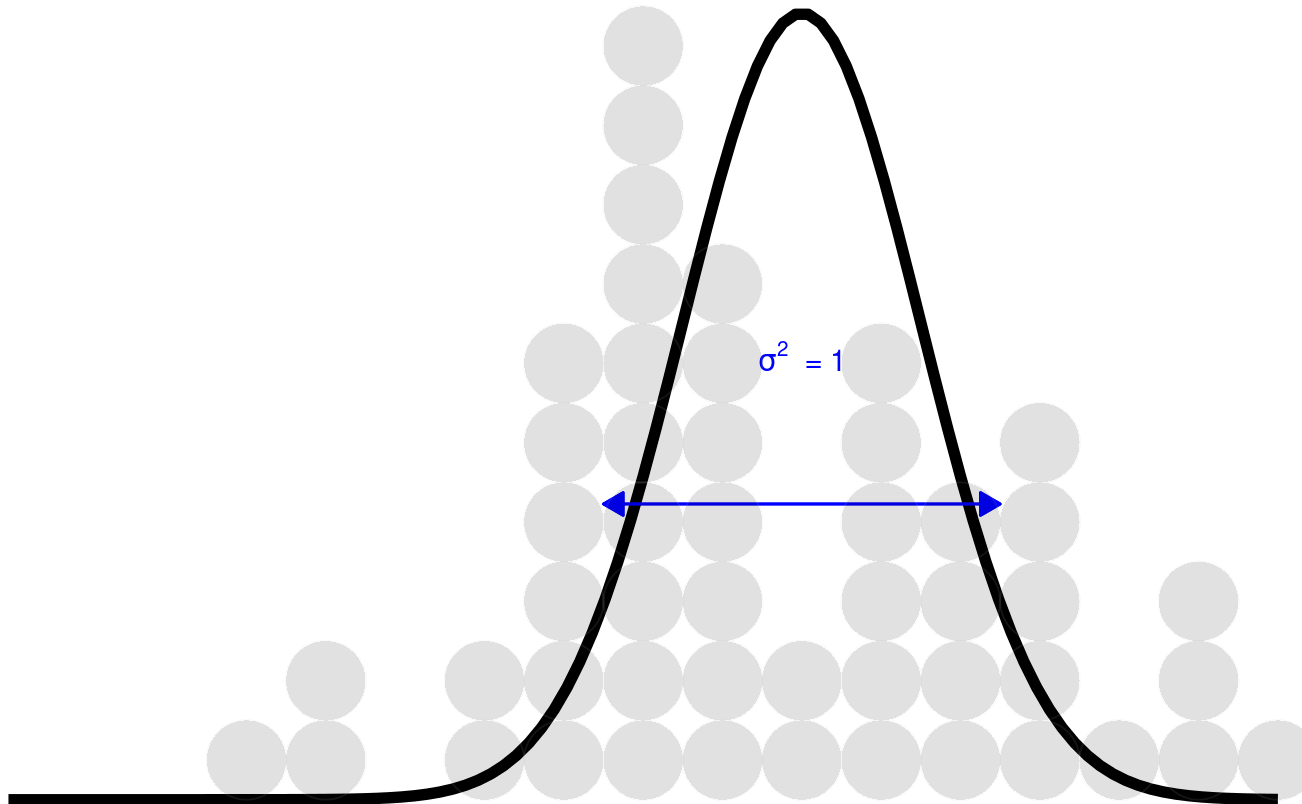
Can we use our data sample to help us?



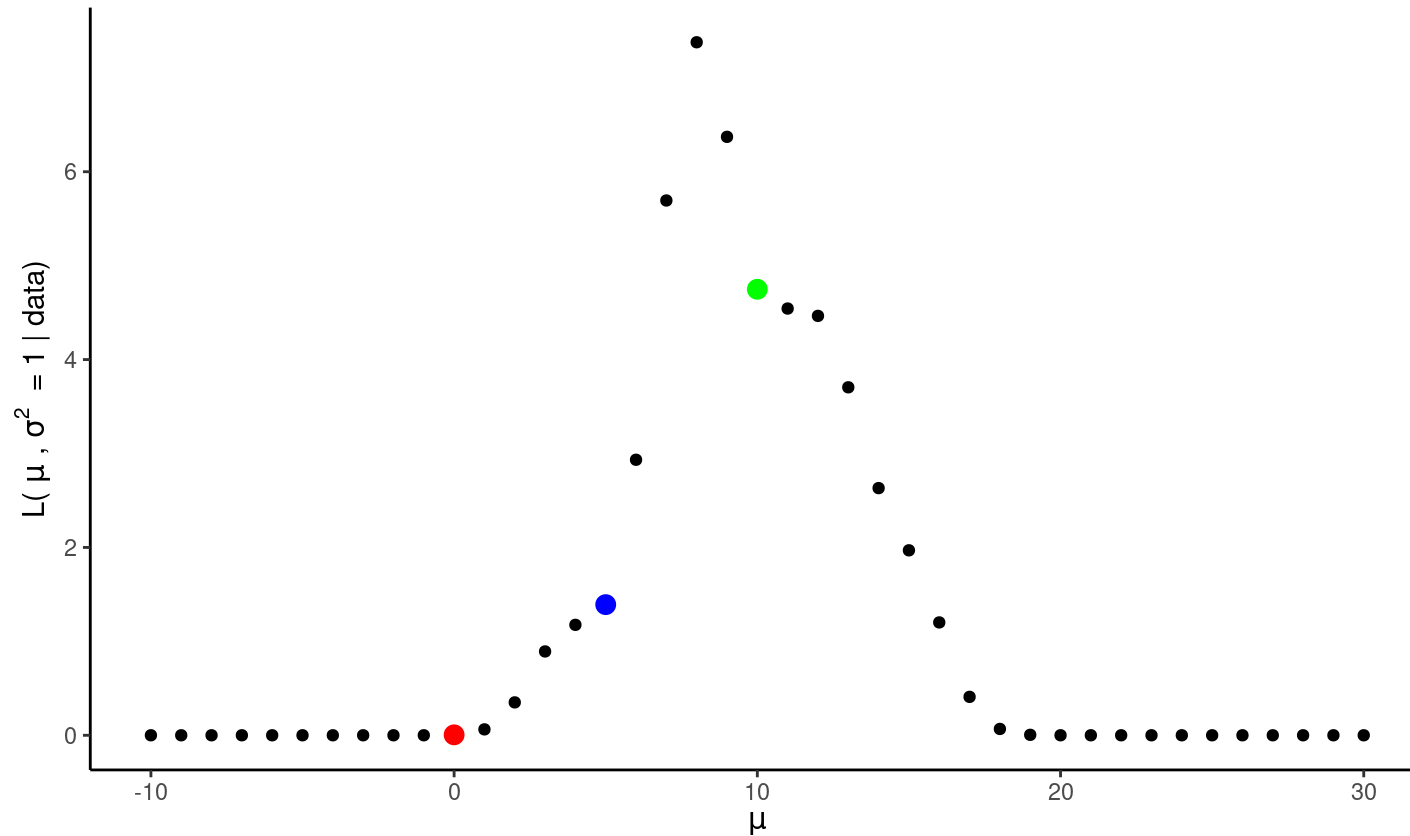
Here, the sample average seems a sensible guess for the population mean



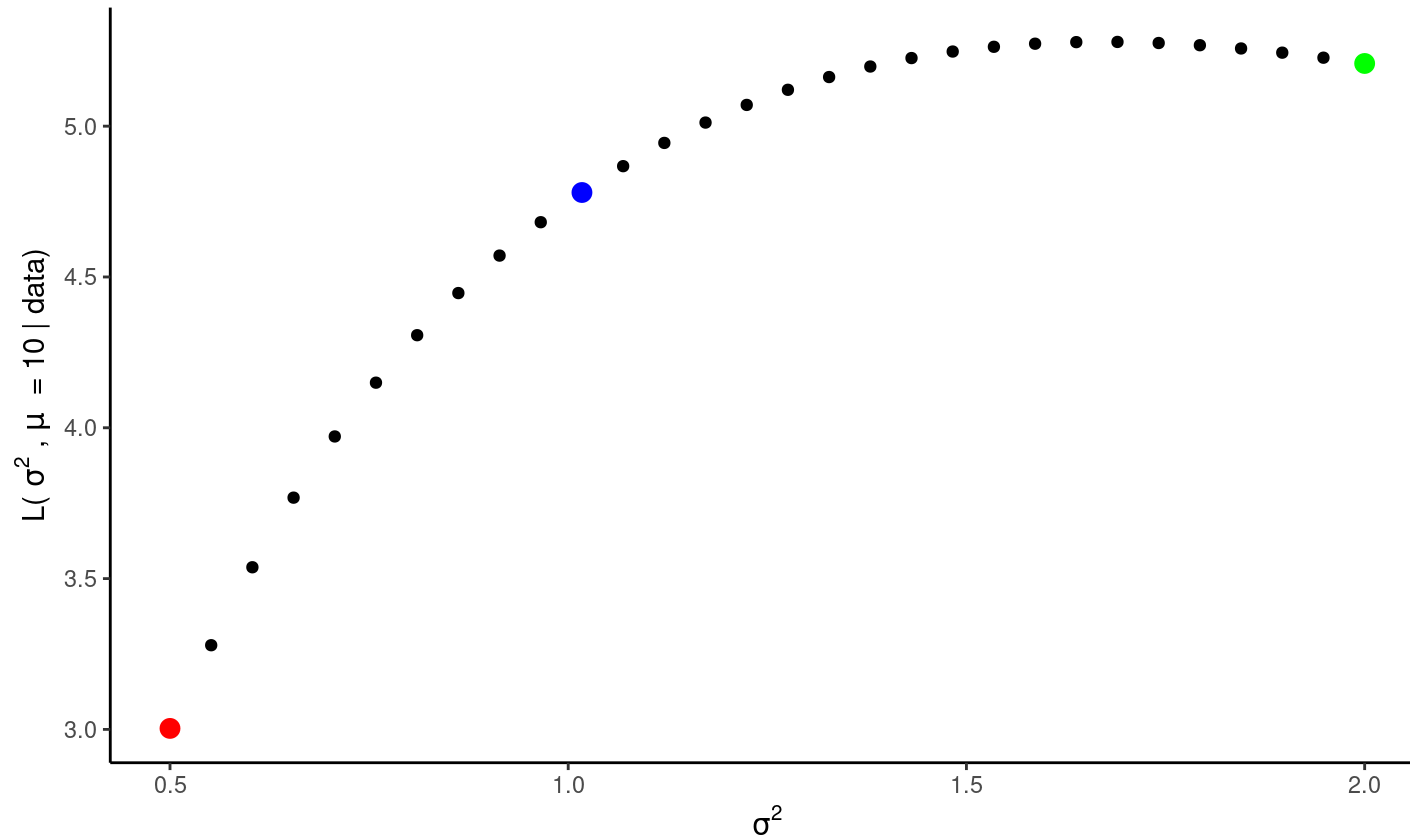
What about σ ? Is 1 a sensible guess?



Is $\mu = 10$ our "best" possible guess assuming $\sigma = 1$



Is $\sigma = 1$ our "best" possible guess assuming $\mu = 10$



What we actually want is to “guess” both together.

