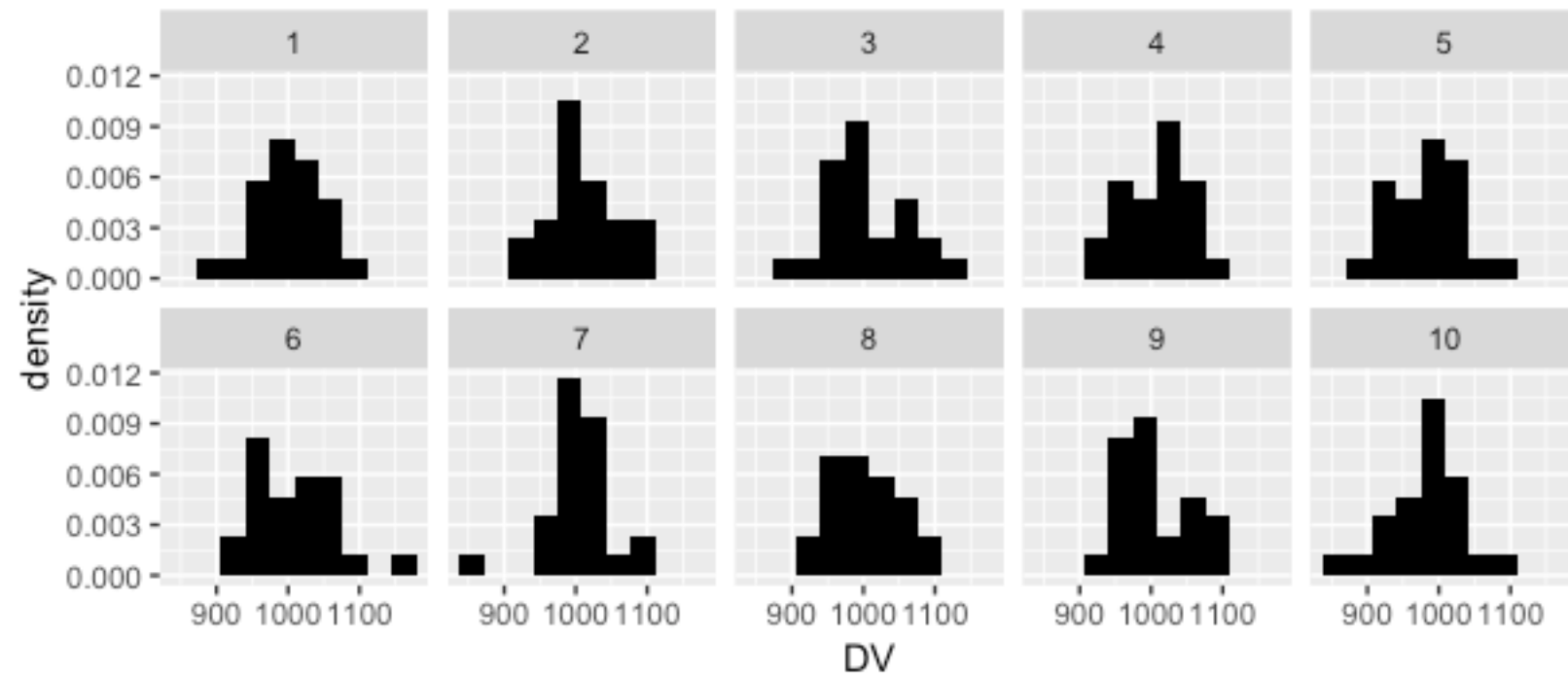
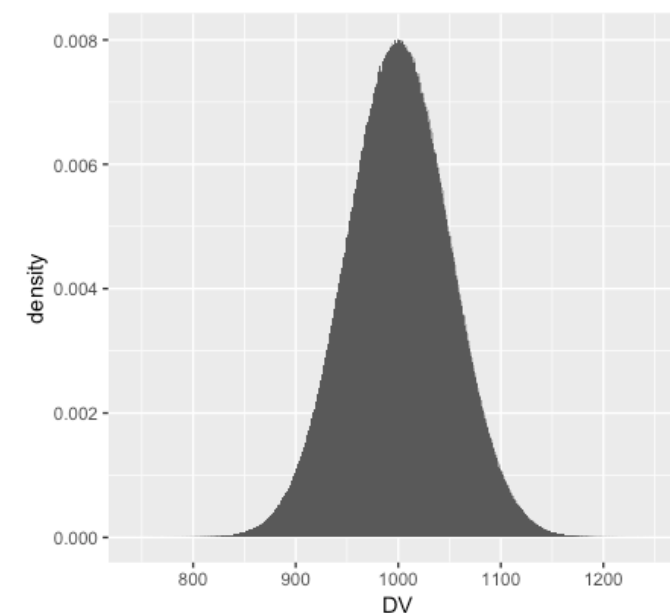


If our sample sizes are small, few sample distributions actually look like the population from which they're drawn and most sample means are a little different from the population mean:



None of these look much like:



- When we take a sample from a population the mean of the sample may be quite different from the mean of the population (aka sampling error).
- If I take two samples, and work out the mean of these two samples, I should have a better estimate of the population mean than if I just looked at the mean of one of the samples.
- If I take three samples, work out the mean of these three samples etc. etc.