Reading

- BPS Chapter 3.

Exercises

BPS - Check your skills Chapter 3 # 15-24. You do not need to turn these in.

BPS Chapter 3 # 26, 27, 29, 30, 31, 40, 43, 46*, 50*

* Use R for these problems.

R Project Normal data

1. Use `rnorm` to generate 100 random values with $\mu = 0$ and $\sigma = 1$ (the defaults). Make a frequency histogram of this data, and use `lines` to add a standard normal curve to the histogram. Print your plot.
2. Use `rnorm` to generate 10000 random values with $\mu = 100$ and $\sigma = 10$. Store these in a variable $x1$. Make 10000 more and store them in $x2$. What do you think the mean and SD of $x1 + x2$ will be? Compute them. What did you get?
3. Use `runif` to generate 1000 random values, uniformly distributed in the range 0 to 1 (the default). Store them in a variable $x1$. Look at the histogram for $x1$ - does it appear uniform, as expected? Repeat to make uniform data $x2, x3, x4$. Make a histogram of $x1 + x2 + x3 + x4$. What shape does the distribution of the sum have?