

Normal Distribution Exploration Questions

This applet lets you see how the results of an experiment with a lot of trials might look. Experiment with moving the standard deviation lines to change the shape of the graph. Try to answer these questions:

- How are the standard deviation and the shape of the graph related? What moves with the standard deviation lines? (hint: look at whether the graph is curving concave-up, like a right-side-up spoon, or concave-down)

- Does the area below the curve seem to change when the standard deviation gets bigger or smaller?

- Create a histogram with 100 trials. Experiment with the bin size. Does the histogram look like it fits the curve well? Does it depend on bin size? Does it help more to have bigger or smaller bins?

