

**Technology Note: Drawing a Distribution on the Calculator**

The TI-83/84 will draw the distribution for you. But before doing that, we need to set an appropriate window (see screen below) and delete or turn off any functions or plots. Let's use the last example and draw the shaded region of the normal curve with  $\mu = 83$  and  $\sigma = 8.583$  below 94. Remember from the empirical rule that we probably want to show about 3 standard deviations away from 83 in either direction. If we use 9 as an estimate for  $\sigma$ , then we should open our window 27 units above and below 83. The  $y$  settings can be a bit tricky, but with a little practice you will get used to determining the maximum percentage of area near the mean.

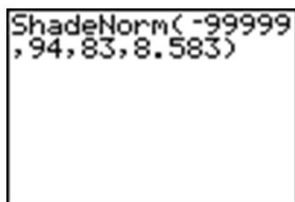
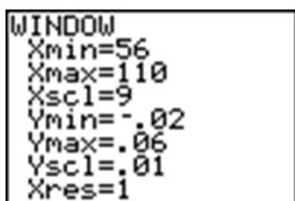


The reason that we went below the  $x$  axis is to leave room for the text as you will see.

Press [2nd] [DISTR]> and arrow over to the Draw option.

Choose the ShadeNorm command. You enter the values just as if you were doing a normalcdf calculation:

ShadeNorm (lower bound, upper bound, mean, standard deviation)



Press [ENTER] to see the result.

