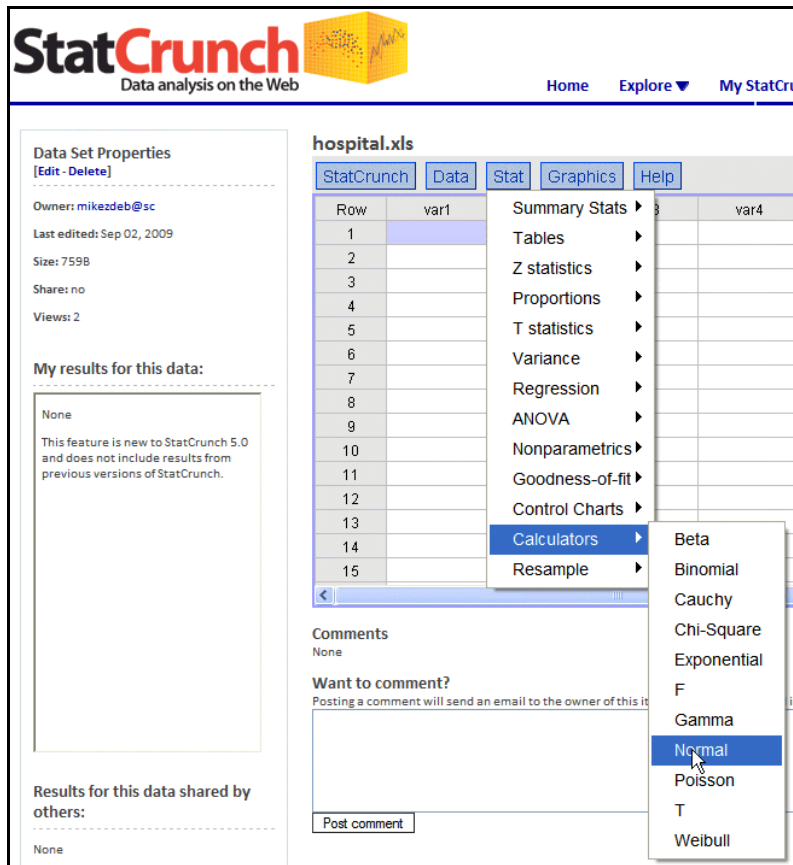


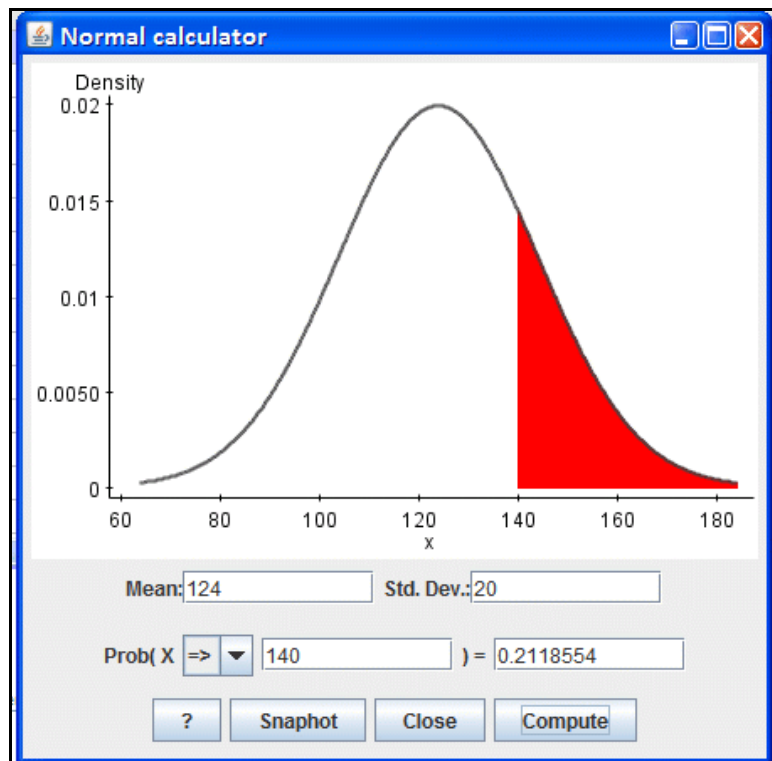
in StatCrunch,

select STAT, then
CALCULATORS, then
NORMAL



enter the values for problem
5.6 and make sure that you
look for $PROB(X \Rightarrow$

this should be what you find
using a z-score in table 3

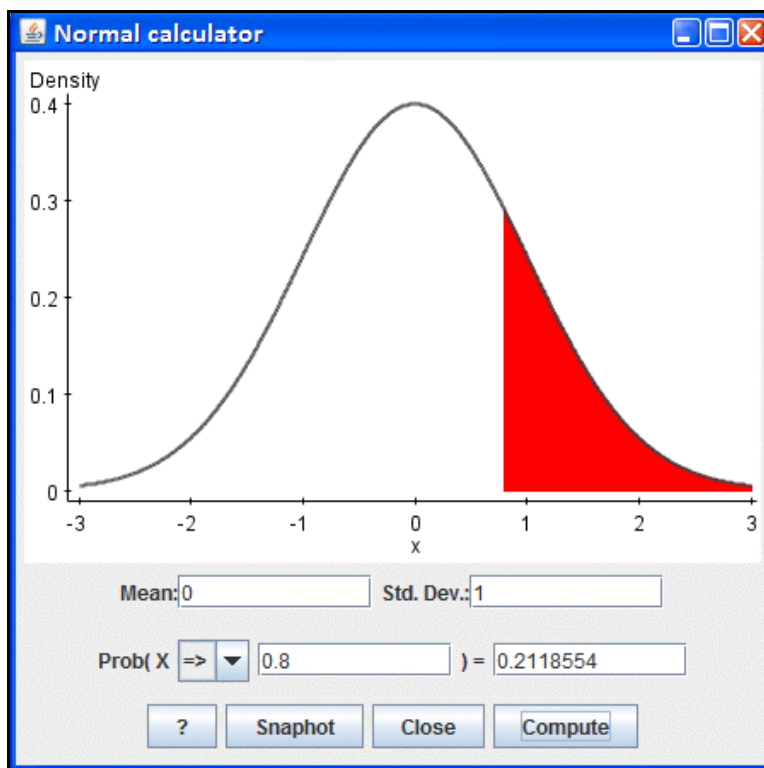


you can also try the z-score approach with StatCrunch

that (and table 3) assumes you are using a distribution with a mean of 0 and a standard deviation of 1

in problem, the value 140 represents a z-score of 0.8

look ... the same answer you get if you use the real numbers

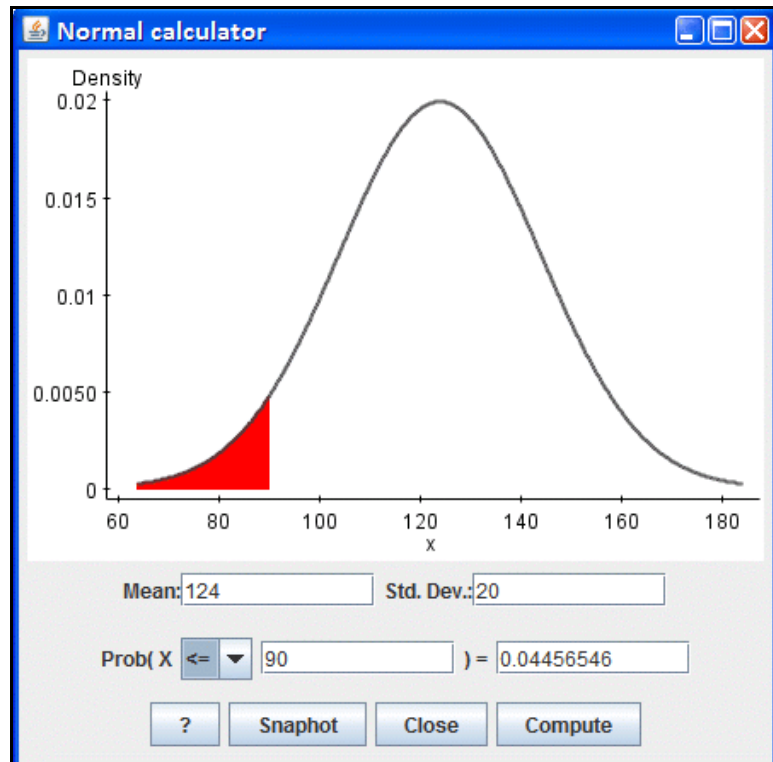


if you read the book 'semi-carefully', the rationale for converting data to z-scores is that there is a unique distribution for every combination of different means and variances (or standard deviations)

table 3 is based on a distribution with a mean of 0 and a variance (and standard deviation) of 1 ... so that one table can be used for any set of data as long as you convert the values to z-scores

that's really a 'pre-computer' view of the world since what you just saw here is that StatCrunch has an infinite number of table 3s, one for every combination of mean and variance ... it doesn't really have tables, it just uses definition 5.5 in Rosner, the formula for the normal distribution that simplifies to equation 5.1 when the mean is 0 and the variance is 1

for problem 5.7, use the original data, but make sure that this time you look for $\text{PROB}(X \leq$



make sure that you are also able to do these two problems using z-scores and table 3

when I teach this course in the classroom, we have quizzes and the students have no access to StatCrunch ... so they have to know how to use table 3 ... so should you since it helps you to understand the normal distribution and what all those areas mean in the 4 columns