Homework Solutions
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Exercise 29

Consider the 100 students to be a sample of size $n = 100$. Because there are 220 tickets left, if the 100 students purchase an average of $\frac{220}{100} = 2.2$ tickets or less, then there will be enough tickets. The average number of tickets purchased per student is 2.1 with a standard deviation of 2.0. Therefore, the average for the sample of 100 will be 2.1 with a standard deviation of $\frac{2.0}{\sqrt{100}} = 0.2$. So the probability that the 100 student purchase no more than an average of 2.2 tickets per student is `normalcdf(-E99,2.2,2.1,0.2)` $= 0.6915$. Thus, the chances are about 69% that all the students will be able to purchase the tickets they want.