

March 4, 2011  
It is E370 Time!!!

☐ Announcements

- ✓ Beginning next week, UGI Andrew Nielsen's library consult hours will be from 10:30 AM to 12:00 noon on Monday and Wednesday.
- ✓ Put your name and team number on a sheet of paper along with the five 'large sample' means you calculated for today's Warm Ups. Give the sheet of paper to your lab coach.
- ✓ The deadline to submit Lab Exam Re-grade requests is 5:00 PM, Friday, March 4.

☐ A question to get you thinking: A car rental company has determined that the probability that a car will need service work in any given month is 0.10. The company has 500 cars.

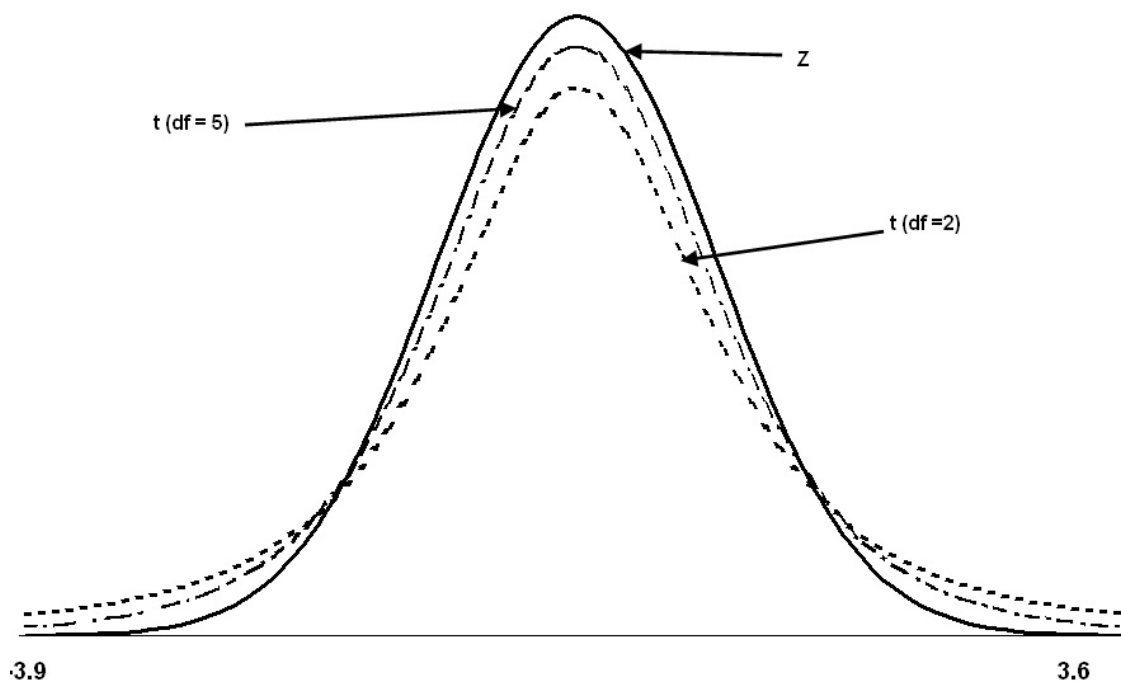
- ✓ Approximately, what is the probability that more than 80 cars will require service work in a particular month?
- ✓ Approximately, what is the probability that as many as 60 will need service work in a particular month?
- ✓ Approximately, what is the probability that as few as 35 but less than 55 will need service work in a particular month?

☐ What will we do today?

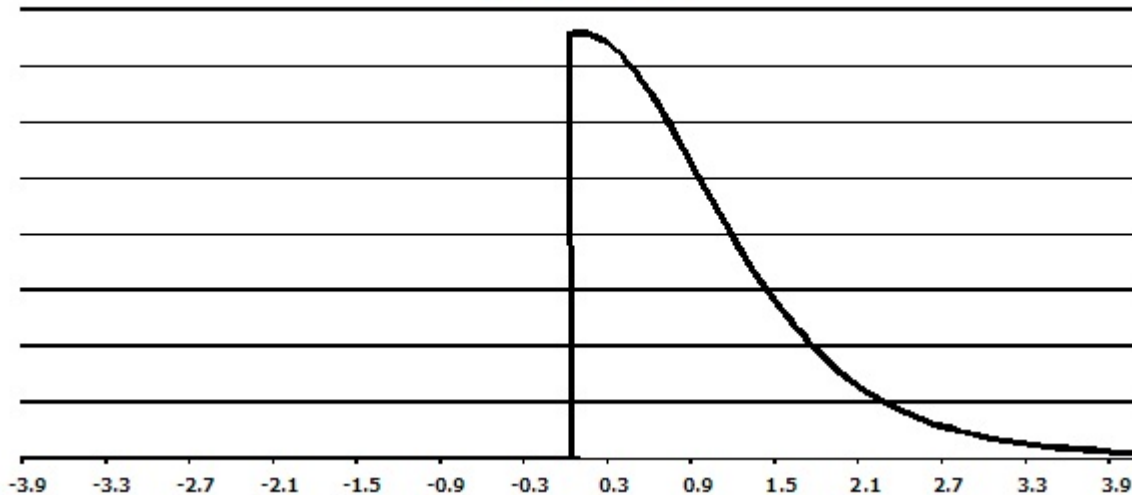
- ✓ Practice with continuity correction factors.
- ✓ Consider what to do if we don't have complete information.
- ✓ Look at the Student's  $t$ , another approximation.
- ✓ Get our brains around another set of two Excel commands that don't follow our pattern.

- When we don't have enough information to use the Normal, what can we do?
- Compare and contrast the  $t$  and the  $Z$

Student's $t$	Standard Normal $Z$



Excel's Student's t



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$$=TDIST(ABS(t),df,1/2)$$

$$=TINV(\alpha, df)$$

- ( $\bar{x} = 1.5$  oz,  $s = 0.1$ ,  $n = 36$ )
- Suppose the Bellagio knows that customers will begin to complain if the amount of alcohol in a mixed drink falls below 1.35 ounces. What is the probability that customers will begin to complain on any given day?
- Bellagio publicists wish to be able to guarantee the amount of alcohol in a mixed drink. What amount of alcohol will the publicists guarantee is in a mixed drink if they wish to replace drinks less than 2% of the time?