

STAT 270 Lecture 21
Fall 2015
28 October 2015

- I covered up to slide 31 of “Continuous distributions”.
- We have covered up page 93 of the text.
- Problems from the text: 5.17, 5.18, 5.19, 5.20, 5.21, 5.40.
- Handwritten slides.
- Key jargon, ideas:
 - The table in Appendix B can be used to look up $\Phi(z)$ for a given z OR to look up Z for a given area.
 - So you can find percentiles approximately.
 - Same as last time: You make normal approximations to a distribution by converting a range to standard units: subtract the mean and divide by the SD.
 - Same as last time: You are approximating areas under 1 curve or histogram by areas under the normal curve.
 - The idea can be applied to the Binomial distribution.
 - You make a continuity correction for integer valued random variables.
 - Example: $P(10 \leq X \leq 30) = P(9.5 \leq X \leq 30.5)$ and convert 9.5 and 30.5 to standard units to use the normal curve. This assumes 9 and 10 and 30 and 31 are possible values of X and nothing in between 9 and 10 or between 30 and 31 is possible.