

STAT 270 Lecture 17  
Fall 2015  
19 October 2015

- I covered up to slide 7 of “Continuous distributions”.
- Problems in the text: 5.10, 5.02, 5.03, 5.04, 5.05, 5.07, 5.08, 5.39, 5.46, 5.51 a and b.
- I defined densities and cdfs of continuous distributions.
- I graphed an example or two.
- We have covered up to the end of Section 5.1.1 in the text.
- Handwritten slides.
- Key jargon, ideas:
  - If  $X$  has density  $f$  then for any  $a$  and  $b$

$$P(a \leq X \leq b) = \int_a^b f(u) du.$$

- The value of the density at a single point doesn’t matter because changing that value won’t change any integral.
- Learn properties of density and cdf.
- Uniform $[a, b]$  density is

$$f(x) = \begin{cases} 0 & x < a \\ \frac{1}{b-a} & a < x < b \\ 0 & x > b \end{cases}.$$

- I graphed the cdf.