Math 447 - Fall 2023 - Homework 06

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Status - Reading Assignments:

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Here is the status of the reading assignments you were asked to complete before the first one of this HW.

WMS (Wackerly, et al. Textbook):
ch.2, ch.3.2 – 3.11

MF447 lecture notes:
ch.1 - 6

Other:
Nothing assigned yet

New reading assignments:

> It is really important for the WMS reading assignments that you work through the examples with pen and paper!

Reading assignment 1 - due Monday, October 9:

- Nothing for Monday

Reading assignment 2 - due: Wednesday, October 11:

(a) Carefully read WMS Ch.4.1-4.3. Be sure you understand that the distribution function $y \mapsto F_Y(y)$ exists for ANY random variable, whereas $y \mapsto p_Y(y)$ is only defined for discrete random variables and $y \mapsto f_Y(y)$ is only defined for continuous random variables (with differentiable F_Y): $F(y) = \int_{\infty}^{y} f_Y(u)du$.

(b) Carefully read WMS Ch.4.4. Not a whole lot to remember about the unifor distribution.

Reading assignment 3 - due Friday, October 13:

(a) Exra carefully read WMS Ch.4.5. The normal distribution probably is by far the most important continuous distribution!

(b) Carefully read WMS Ch.4.6. You are expected to write $p_Y(y), E[Y], Var[Y]$ for gamma distributed (hence, also χ^2 and exonentially distributed Y, from memory!

(c) Read WMS Ch.4.7, but not as carefully as Ch.4.4 about the gamma distribution. I have not yet made up my mind, but it is quite possible that I will put $p_Y(y), E[Y], Var[Y]$ for a random variable with beta distribution on the formula sheet for the exams.

No written assignments

But here is a HINT for WebAssign homework Math-447-2023-08-HW-06

The last problem (#135: A salesperson has found that the probability of a sale ....) is about a binom(n, p) random variable which you should approximate with a poisson$(n \cdot p)$ random variable