

# MATH 4753 Exam 2 FALL 2017

24 October 2017 – this is the latest and supersedes all previous help.

Chapters 5-7

Exam to be held in class usual lecture time Friday Oct 27

50 min long

6 Questions

*Subjects to study (NOT exhaustive)*

- Change of variable formula
- Properties of densities
- Maximum Likelihood method – the algorithm shown in class (6 or 7 steps including change of perspective  $L(\theta)$ ,  $l(\theta)$ ,  $l'(\theta)$  etc)
- CLT how to use – when to use – sums and means
- Bivariate --  $f(x, y)$  properties, finding  $cov(x, y)$  see book for examples
- Calculating cis by hand, interpreting intervals
- Quantiles – what are they? How do you calculate in R?
- Prove cis (ONLY the ones I did in class)
- $E(L)$ ,  $V(L)$  etc