

Tips and Practise Questions for Quiz 2

Hi everyone!

Quiz 2 will be testing topics throughout Parts 3-6 (inclusive) of the lecture notes, namely One Variable, Two Variable, Least Squares and Series.

Below are **some** of the skills that you will be tested on, and some questions that you should have definitely attempted before the quiz next Monday:

- **Extremizing functions of one variable (including those on a restricted domain); finding and classifying critical points:** Course notes (blue Kopystop book) – Exercise Set 2.1 – Q4; Lecture Slides – Part 3: One Variable – Examples on pages 44 and 83.
- **Calculating partial derivatives and the discriminant of functions of two variables; finding and classifying critical points:** Exercise Sheet 7 Q1, Q2, Q6; Lecture Slides – Part 4: Two Variables – Examples through pages 97-111
- **The least squares method for finding lines of best fit:** Exercise Sheet 8 Q4 and Q5; Lecture Slides – Part 6: Least Squares – All examples (except the last)
- **Series:** Exercise Sheet 8 Q6; Exercise Sheet 9 Q1 and Q2; Course notes (blue Kopystop book) – Exercise Set 3.1 – Q1 and Q2

The above is just a guide and is by no means comprehensive, and hence why we call it a “sample”. To be comprehensive, a brief revision of the entirety of the mentioned four topics would be recommended, including the lecture slides, course notes (blue Kopystop book) and exercise sheets (with solutions). Whilst it is also highly recommended that you have a look at some extra exercises and examples from *Stewart* and the *Kopystop Notes* (extra question references are at the end of each tutorial), be aware that the problems will be in a different style to those of the real quiz, but nonetheless good practice.

Best of luck!

George 😊