

# Math 253: Homework 3

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The problems can be found on Apex Calculus V3 vol 3. (Make sure you use V3 and not the new V4).

The HW consists of 8 problems.

- Section 12.5 problems 8,14,20 and 24.
- Section 12.6 problems 8 and 14.
- Section 12.8 problem 12.
- Consider the function  $z = 3(y + 1)^2 - 2x^2$  on the domain bounded by the curves  $y = x$  and  $y = x^2 - 6$ .
  - Sketch the domain.
  - Find and classify all critical points.
  - Find the global maximum and minimum.

The solutions are due on paper on Thursday 7 at the beginning of the lecture. Make sure you write your name and student number in the assignment.

If for any reason you cannot hand in your assignment on the due date, either hand it before, or send a high quality, readable and low weight [ $< 1\text{Mb}$ ] scan to my e-mail before the due date.

Good luck!

Updated May 28, 2018.