Thomas' Calculus Early Transcendentals 13ed

## Study guide for Midterm 02

Review the study guides for quiz 04 - quiz 07. They are all relevant for midterm 02.

- 1. Section 5.3: Practice how to express a definite integral as the limit of Riemann sum and conversely, practice how to identify a limit of Riemann sum as a definite integral.
- 2. Section 5.4: Study the statement and proof of Fundamental Theorem of Calculus in both Part 1 and Part 2. Try to apply them by making up some examples to both by yourself. In particular, how to find a definite integral from antiderivative of the integrand.
- 3. Section 5.5, 5.6: Practice definite and indefinite integrals using substitution method. Try to make up some examples. Understand the true meaning of  $\frac{du}{dx}dx = du'$  and how to actually use it.