Lecture on Jul. 17th, 2017: Calculus for Trigonometric Functions

1 Warm-up Practice

- Graph the region bounded by $y = x^2$, $y = 9$, $0 \leq x \leq 3$. Describe it as a regular x region and a regular y region.

2 Trigonometric Function Review

- Two measures of angles.

- Definitions of sine and cosine functions.

- Properties and graphs of sine and cosine functions.

- Other trigonometric functions.

3 Calculus for Trigonometric Functions

- Derivative formula of sine and cosine functions.

- Integration formula of sine and cosine functions.

- Example: Find $\frac{d}{dx} \sec x$.