Preparation Guide for Quiz 03

April 22, 2011

1. Understand the meaning of horizontal, vertical, oblique asymptotes. Give an example for each of them.

2. Understand the meaning of dominant terms in a rational function. Give an example of a quadratic dominant term.

3. For optimization, pay attention to the domain. What are possible locations where the function can attain absolute maximum or minimum?

4. If $f'(x_0) = 0$, is it true that $f(x_0)$ must be a local minimum or local maximum? Are there other possibilities?

5. Sometimes people get confused between Intermediate Value Theorem and Mean Value Theorem. Make sure that you know the difference. What is the relation between Mean Value Theorem and Rolle's Theorem?