Homework 4 for Math 131BH Honors Analysis

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Due on Tuesday, February 14.

Rudin, p. 168: 16, 20, 22, 25.

(1) Let f be a complex-valued differentiable function on a closed interval $[a, b]$. If f' is Riemann-integrable on $[a, b]$, show that

$$|f(b) - f(a)| \leq \int_a^b |f'(t)|\, dt.$$