

Estimating $\ln(5)$

- a) Use the mean value theorem and the fundamental theorem of calculus to find upper and lower bounds on $\int_1^5 \frac{1}{x} dx$.
- b) Compute $\int_1^5 \frac{1}{x} dx$.
- c) Does your answer to (a) provide a good estimate of the value of $\ln(5)$?

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