

Paper 3: Potential and Actual Infinity

DUE DATE

This paper is due by midnight on Friday, March 20th, 2015. Please submit your paper on the Canvas website in .doc or .docx format if possible. Other acceptable formats include .pdf and .odt.

TOPIC

Explain Aristotle's distinction between the potential and actual infinite. Explain one mathematical theorem that can be understood as requiring only the concept of potential infinity (as opposed to actual infinity) in either its statement or proof. Explain why the construction of real numbers via Dedekind cuts or Cauchy sequences requires actually infinite collections.

**TECHNICAL
REQUIREMENTS**

Your paper should be as long as is necessary to reconstruct the argument charitably. As a rough guideline, most students need about 1,000 to 1,500 words to accomplish this task. Your paper should not exceed 1,500 words, however. Please include a complete bibliography with any other sources that you have consulted.