Professor Victor Reiner’s guidelines:
August 2010

The CLA senior paper in math should ...

-- generally be supervised by a math professor that knows something of
    the student's abilities and background, most often from having taught them
    in a class.

-- in the best situation, have its topic chosen by the student, through their own
    investigation, rather than relying on suggestions from their supervisor.

-- be about 8-15 pages in length.

-- represent roughly 40-50 hours of work by the student.

-- demonstrate that the student has learned some mathematical
    material they didn't already know,

-- demonstrate that the student can explain the math clearly, to a reader who has some
    math sophistication, but is not previously familiar with the paper's topic.

-- be grammatical, spell-checked, laid out coherently, like an English composition,
    often divided into sections/subsections, with a table of contents.

-- not necessarily be written in the "Definition-Theorem-Proof" format typical of
    some math texts; this can vary greatly depending upon the subject matter and choice
    of style.

-- involve passing back and forth drafts between the supervisor
    and student. For this reason it is crucial that the student hand
    in an outline before the midsemester, and a full first draft no more than
    2 weeks after the midsemester. Professors become overwhelmed with
    work at the end of the semester and will not have time to pass back drafts
    in the last few weeks before classes end, leading to a lower grade on the paper.