

Final Examination – Take-Home Part

Write an essay (about one page, or 200 words) about *the alternate interior angle theorem* **and** *the converse of the alternate interior angle theorem*. Pay special attention to the relation of each of them to the three kinds of parallelism (Euclidean, elliptic, hyperbolic). Complete proofs are not expected, but remarks on the logic of certain proofs can illuminate the relationships to parallelism.

Because this is an open-book question, mathematical correctness is the easy part. Your main task is to choose the most important things to say and to organize them well.

This part is an open-book examination: You may consult Greenberg's textbook, your notes, and the materials on our class web page. You may consult books in the TAMU library but not check them out (and you should footnote any directly pertinent information you get from them). But while you are working on the test, you should not discuss it with other human beings (with or without intervening electronic media) nor use Web search engines. Even after finishing, you must not mention it among students who may not have done so.

Turn in your essay at the start of the final exam in Blocker 121 on Tuesday, May 7, **or, for a 1-point bonus**, turn it in before 4:30 p.m. on Monday, May 6, at Blocker 620H.