

MATH 5200/7200 Exam 1

Dr. McCrory

Part B: TAKE-HOME EXAM, due Monday, September 22, 2008

In each of these problems, first do a Geometer's Sketchpad construction (using only the GSP Construct menu), and then prove your construction works.

Email your GSP files to Dr. McCrory by 11:15 am Monday. You may turn in your proofs at the same time by email or hand in a hard copy in class. (Your proofs do not have to be typed.)

Write your proofs in complete sentences. You may use any facts you know from Euclidean geometry.

You may not consult anyone but Dr. McCrory. You may not consult books or the internet. However, you may consult your notes for this class and the course web site, including all of the Notes from Class, but not the Useful Links and References.

1. Given a triangle ABC , construct a triangle $A'B'C'$ so that $A'B'C'$ is similar to ABC and the area of $A'B'C'$ is three times the area of ABC .

2. Given two lines L and M and a point P on the line L , construct a circle C so that P lies on C , and L and M are tangent to C .